BEDFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT

OF THE

COUNTY

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1925.

Bedfordshire County Council.

REPORT

UPON THE

Sanitary Condition & Public Health

OF THE

ADMINISTRATIVE COUNTY OF BEDFORD

FOR THE YEAR

1925.

BY

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ADMINISTRATIVE COUNTY.

To the Chairman and Members of the Bedfordshire County Council.

My Lords and Gentlemen,

I have the honour to present my Annual Report upon the Public Health and Sanitary Circumstances of the County of Bedfordshire for the year 1925. This includes a "Survey" of the five years, 1921-25.

The general death-rate for the year 1925 was slightly lower than that for the previous year, and the rate of Infantile Mortality was somewhat higher. These facts also apply to England and Wales generally ; but the County rates are well below those for the country as a whole. During the year no considerable outbreaks of infectious disease occurred, except in the Borough of Luton, where 151 cases of Diphtheria were notified.

1921-1925.

For a period during which the strictest economy has had to be practised, but little progress can be expected in the development of public health activities within the County ; but a review of the County sick-rates and death-rates for the past five years serves to impress the fact that the health circumstances of the population have remained good and the public health services have been well maintained.

It will be appreciated, however, that the value of the comparison between 1921-1925 and the preceding five yearly period is discounted by the disturbing circumstance that the earlier quinquennial period embraces three years of the Great War and the two immediately following it. Having in view this fact, I have judged it to be useless to develop the comparison in great detail ; but throughout the Report I have set out the usual returns of the more important causes of sickness and mortality for each of the years from 1921 to 1925, inclusive.

The greatest decreases in mortality relate to those diseases upon which most preventive effort has been spent, and so the sanitary authorities may fairly claim that a considerable part of the decreases during the past five years have resulted from the work for which they are responsible. Great benefits have thus been conferred upon the community and more particularly by the work undertaken in connection with Infant Welfare and the control of Communiçable Diseases (including Tuberculosis).

The public health records for 1921-25 furnish good grounds for satisfaction in several respects—to which I would refer briefly. The most outstanding of these good records has reference to the reduction in the deaths of children under one year of age ; but for every such infant that dies it is probable that three survive in a more or less crippled condition, entailing suffering to the child and expense to the community later on. The services which prevent the mortality are also preventing the crippling. The Infant Mortality rate for the past five years (62 per thousand births) represents a considerable improvement upon that of the preceding five years (76), and it is the lowest for any five-yearly period on record. This is due in a measure, which cannot be estimated, to the fact that the Maternity and Child Welfare work has been considerably extended during the last five years. The number of visits paid by the County Health Visitors has increased from 10,241, the figure for 1920, to 24,094, the figure for 1925 ; the ante-natal visits have reached their highest total (518) in 1925 ; and since 1920, the visits to children of from one to five years of age have increased from 4,831 to 8,898, annually.

The General Death-rate for 1921-25 was only 11·6, whereas that for the preceding five years was 13·1 ; and the death-rate from that great scourge Pulmonary Tuberculosis was 0·78 for the former period, as against 0·94 for the latter period.

The three rates above referred to are well below the corresponding rates for England and Wales.

Venereal Diseases have been reduced. The new patients, who came for treatment to the County Venereal Diseases Clinics in the year 1925, were only half as numerous as in the year 1920, although the public are now better informed of the dangers if treatment is not sought early and persevered in until a complete cure is established.

Much progress has been made in developing the scope of work in connection with the Medical Inspection of School children. In 1925, 6,899 school children were medically inspected, and 1,875 defects were discovered ; whereas for 1920 the figures were 6,334 and 2,314, respectively.

Mention must also be made of the fact that the County Tuberculosis Work has benefited from certain developments, and notably by the fact that the Mogerhanger Park Sanatorium began to function early in the five-yearly period under review. The important and efficient midwifery service of the County has been augmented since 1920 by 14 midwives.

The above-mentioned facts undoubtedly furnish grounds for much satisfaction; but the review of the records for 1921-25 reveals certain facts which are otherwise than satisfactory and which call for further action.

The mortality during the first month of life has been but little reduced, the saving of infant lives taking place mainly during the subsequent months of the first year of life. It is hoped by the further development of the ante-natal work to substantially reduce these deaths among the newly-born, embracing those from premature birth and congenital debility.

The sickness and mortality from Diphtheria in Bedfordshire are higher than they need be; both could be more effectually controlled by a fuller application of modern methods.

The County shares with the country as a whole the need for further efforts to reduce certain other mortality rates, which are much higher than they should be. I refer to those from Cancer, and the Diseases of Parturition and Pregnancy, the Respiratory Organs, the Kidneys and the Heart.

In the population of Bedfordshire those in the late age periods of life are somewhat more numerous than in England and Wales generally, and this circumstance tends to favour a higher Cancer rate. If allowance is made for this fact, the increased mortality from this disease during the past five years has been similar to that for England and Wales as a whole. If the disease is of microbic causation, as there are now good grounds for believing, our knowledge concerning Cancer is likely to be extended in the near future. In 1880 Diphtheria was as obscure as Cancer; in 1890 it was better known to us than most other human diseases. Popular education on the lines suggested in this Report is capable of rendering useful assistance in the campaign against this disease. Indeed, further efforts are necessary to reduce the considerable amount of ill-health and premature death which still result from many prevalent diseases. A general public education in matters bearing upon health is called for. The people must be led to practice healthy habits in the intimate circumstances of their living, for it is an established fact that health, from infancy to old age, depends more upon individual behaviour than upon physical environment—important as the latter is. Section 67 of the Public Health Act, 1925, applies to County Councils, as well as to Urban Authorities and Rural District Councils, and allows them to arrange for the publication within their area of

information on questions relating to health and disease, the delivery of lectures, and the display of pictures, in which matters of health are dealt with.

Heart Disease is responsible for one in every six of the total deaths in the County. It is on the increase, not only in Bedfordshire but also in the Country as a whole. Much of it has its origin in Rheumatism during childhood, and an organised effort of prevention is called for.

Although the work of the Sanitary Inspector is of the greatest value in keeping dwellings in a fairly sanitary state and in checking the formation of slum areas, it is not now possible to prevent overcrowding or to mitigate its many evils. Surely the greatest service that Local Authorities can render to the community is to do all in their power to bring about the building of more houses, which can be let at rents which the less well-to-do section of the population can afford to pay; for it is the testimony of most of the District Medical Officers of Health that they are powerless to deal with the great measure of overcrowding which exists and to discontinue the occupation of unfit houses. Present-day housing conditions are reducing in no small measure, the returns from the large expenditure of money and effort in respect to Tuberculosis, Maternity and Child Welfare, National Insurance, etc. The recent increase in the number of dwellings erected is therefore a matter of outstanding public health importance. During 1925 more new houses (892) were built in Bedfordshire than in any year since the War.

In matters of General Sanitation and Food Inspection there is also evidence of more enterprise in 1921-25 than was the case throughout the difficult period of the preceding five years.

The various Public Health Services provided by the County Council have been efficiently maintained throughout 1925, as in previous years: and I am glad to have this opportunity of expressing to Dr. Herdman and to Dr. Welch my appreciation of their capable co-opereration; to the District Medical Officers of Health my thanks for their ready help at all times; and to the other Public Health officials my congratulations upon the good results they have achieved.

I have the honour to be, my Lords and Gentlemen,

Your obedient Servant,

HENRY KENWOOD.

August, 1926. *County Medical Officer of Health.*

THE COUNTY

VITAL STATISTICS.

The Administrative County includes three municipal boroughs and 139 civil parishes. The acreage of the County is 302,942.

The Urban Districts within the County are (including the two Boroughs) seven in number, and the Rural Districts are six, making 13 Local Sanitary Areas.

Population.

The aggregate civil population of the Urban and Rural Districts, as estimated for the middle of 1925 by the Registrar General, was as follows :—

Urban Districts	129,500
Rural Districts	83,080
The County	212,580

This estimate of population is based on the adjusted 1921 Census figures, after allowance for the varying rates of natural increase as evidenced by the births and deaths in each area, and for migration as indicated from other sources of information, such as the changes in the numbers on the Electoral Register and the migration returns obtained by the Board of Trade.

The numbers of births and deaths are those registered during the calendar year and are corrected for inward and outward transfers ; they may therefore differ slightly from uncorrected figures compiled locally.

Births.

3326 Births were registered in the County, 131 of which were illegitimate. The birth-rates per 1,000 of the County, the Urban and Rural Districts and of England and Wales, are given below :

Localities.	Birth rate for 1921.	Birth rate for 1922.	Birth rate for 1923.	Birth rate for 1924.	Birth rate for 1925.
Urban Districts	19·0	17·6	16·9	15.2	15·2
Rural Districts	19·0	18·3	18·0	17.3	16·3
Administrative County	19·0	17·9	17·4	16.0	15·6
England and Wales	22·4	20·6	19·7	18·8	18·3

The County birth-rate was below that for the preceding year and equals the lowest on record for the County of Bedford.

The decline in the birth-rate of the County applies equally to the Urban and Rural Districts.

When a diminishing birth-rate is accompanied by a diminishing death-rate, a fairly satisfactory natural increase in the population (by excess of births over deaths), may still be maintained. But in Bedfordshire the excess of the birth-rate over the death-rate for the year 1925 was only 4·0 per 1000; as against 6·1 for England and Wales.

The very marked rise in the Birth-rate in 1920 was probably an accident due to the return home of the bulk of the troops who had been engaged in the Great War, and it was only a temporary check to the decline in the Birth-rate which had set in many years previously. This decline has continued throughout the five years 1921-25, and it can be explained only by the increasing knowledge and application of methods of birth-control among the general population. It is inevitable that a still further growth of this knowledge and practice, in view of the difficult times of unemployment and housing deficiency which are destined to continue for some years, will lead to a further reduction in the Birth-rate in the future, without any assistance from the propaganda which some advocate to that end.

TABLE I.—Causes of Death at Different Periods of Life in the Administrative County of Bedfordshire, 1925.

CAUSES OF DEATH.	AGGREGATE OF URBAN DISTRICT.									AGGREGATE OF RURAL DISTRICT.								
	At all ages.	under 1 year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	At all ages.	under 1 year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upward
Enteric Fever	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Measles	3	2	—	—	1	—	—	—	—	2	—	1	—	1	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	12	6	3	2	1	—	—	—	—	7	5	1	1	—	—	—	—	—
Diphtheria	12	—	—	5	7	—	—	—	—	5	—	—	—	4	1	—	—	—
Influenza	36	—	—	—	1	—	9	9	17	30	—	—	—	1	2	2	6	19
Encephalitis Lethargica ...	5	—	—	—	2	—	1	2	—	2	—	—	—	—	—	1	1	—
Meningococcal Meningitis ...	2	1	—	—	—	—	1	—	—	2	1	—	—	—	—	1	—	—
Tuberculosis of Resp. System ..	91	—	—	1	3	25	38	16	8	53	—	—	—	1	14	24	13	1
Other Tuberculous Diseases ...	23	—	—	2	5	6	6	4	—	11	—	—	1	1	4	4	1	—
Cancer, Malignant Disease ...	170	—	—	—	—	2	17	72	79	131	—	—	—	—	—	8	45	78
Rheumatic Fever	4	—	—	1	1	—	1	—	1	2	—	—	—	2	—	—	—	—
Diabetes	15	—	—	1	—	1	3	5	5	9	—	—	—	—	—	—	4	5
Cerebral Hæmorrhage, &c. ...	105	—	1	—	—	—	1	26	77	78	—	—	—	—	1	2	13	62
Heart Disease	246	—	—	—	2	2	15	63	164	138	—	—	—	1	1	5	33	98
Arterio-sclerosis	62	—	—	—	—	—	1	7	54	45	—	—	—	—	—	—	4	41
Bronchitis	111	14	2	1	1	—	5	13	75	72	5	1	2	—	—	—	6	58
Pneumonia (all forms)	66	9	7	2	3	1	12	9	23	41	5	2	3	3	3	5	10	10
Other Respiratory Diseases ..	10	1	—	2	—	—	—	2	5	7	—	—	—	—	—	—	3	4
Ulcer of Stomach or Duodenum	13	—	—	—	—	—	2	8	3	9	—	—	—	—	1	2	4	2
Diarrhœa, &c.	9	5	—	1	—	1	—	—	2	10	6	—	—	—	—	2	2	—
Appendicitis and Typhlitis ...	15	—	—	1	4	3	3	2	2	6	—	—	—	1	1	1	—	3
Cirrhosis of Liver	13	—	—	—	—	—	2	10	1	5	—	—	—	—	—	1	3	1
Acute and Chronic Nephritis ...	31	—	—	—	2	—	5	12	12	20	—	—	—	1	1	1	7	10
Puerperal Sepsis	3	—	—	—	—	1	2	—	—	2	—	—	—	—	1	1	—	—
Other Accidents and Diseases of Pregnancy and Parturition	7	—	—	—	—	—	7	—	—	4	—	—	—	—	1	3	—	—
Congenital Debility, Premature Birth, &c.	82	81	—	—	—	—	1	—	—	37	36	—	—	—	—	1	—	—
Suicide	10	—	—	—	—	3	3	3	1	7	—	—	—	—	1	1	4	1
Violence, apart from Suicide ..	35	1	1	1	2	6	6	9	9	31	2	1	3	3	—	6	5	11
Other defined Diseases	277	24	2	5	5	9	22	49	161	195	8	1	5	3	2	9	16	151
Causes ill-defined or unknown ...	1	—	—	—	—	—	—	—	1	7	—	—	—	—	—	1	—	6
TOTALS: ALL CAUSES ...	1470	144	16	25	40	60	164	321	700	968	68	7	15	22	34	81	180	561

TABLE II.

THE COUNTY OF BEDFORD.

CAUSES OF DEATH IN ADMINISTRATIVE AREAS, 1925.

CAUSES OF DEATH.	ADMINISTRATIVE AREAS.													TOTALS.	
	Ampthill Urban	Ampthill Rural	Bedford Urban	Bedford Rural	Biggleswade Urban	Biggleswade Rural	Dunstable.	Eaton Bray.	Eaton Socon	Kempston.	Leighton Buzzard.	Luton Borough.	Luton Rural.	U.D's., 1925.	R.D's., 1925.
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Measles	—	—	2	1	—	—	1	—	—	—	—	—	1	3	2
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-cough	—	—	1	1	—	4	1	—	1	1	—	9	1	12	7
Diphtheria and Croup... ..	—	3	—	1	—	—	—	—	—	2	1	9	1	12	5
Influenza	1	6	13	12	—	7	3	—	1	1	3	15	4	36	30
Meningococcal Meningitis	—	1	2	1	—	—	—	—	—	—	—	—	—	2	2
Phthisis (pulmonary tuberculosis) ...	—	13	31	14	4	12	6	2	—	3	4	43	12	91	53
Other tubercular diseases	1	1	9	5	—	5	1	—	—	—	2	10	—	23	11
Cancer, malignant disease	3	40	50	33	14	37	14	4	5	6	8	75	12	170	131
Rheumatic Fever	—	1	—	—	—	—	1	1	—	1	1	1	—	4	2
Diabetes	2	2	2	2	1	2	2	1	2	—	1	7	—	15	9
Cerebral hæmorrhage, &c.	9	23	32	14	4	20	10	4	2	3	12	35	15	105	78
Heart Disease	11	28	88	35	10	41	16	8	10	7	15	99	16	246	138
Arterio-sclerosis	—	7	40	21	2	11	3	1	3	5	2	10	2	62	45
Bronchitis	3	11	24	14	6	21	13	4	2	3	4	58	20	111	72
Pneumonia (all forms)	1	11	11	6	1	10	3	2	2	1	6	43	10	66	41
Other Respiratory diseases	—	—	3	1	—	3	3	1	2	—	—	4	—	10	7
Ulcer of stomach or duodenum ...	—	1	4	6	1	2	—	—	—	1	2	5	—	13	9
Diarrhœa, &c. (under 2 yrs.)* ...	—	2	2	1	—	1	2	1	1	—	—	1	—	5	6
Appendicitis and Typhlitis ..	—	—	7	2	—	3	2	—	—	1	1	4	1	15	6
Cirrhosis of Liver	—	2	7	1	—	2	1	—	—	—	1	4	—	13	5
Acute and Chronic Nephritis.	—	5	8	3	1	11	2	—	—	2	2	16	1	31	20
Puerperal Sepsis	—	—	—	1	—	—	—	1	—	2	—	1	—	3	2
Other accidents and diseases of Pregnancy and Parturition ...	1	1	3	—	—	3	—	—	—	—	—	3	—	7	4
Congenital Debility and Malformation including Premature Birth	1	8	27	4	3	7	3	5	—	1	9	38	13	82	37
Suicides	—	2	4	2	1	1	—	—	—	1	1	3	2	10	7
Other deaths from violence	3	7	12	11	2	7	2	—	2	3	2	11	4	35	31
Other Defined Diseases	3	70	71	36	13	42	34	20	9	8	20	131	22	280	199
Causes ill-defined or unknown ..	—	4	—	1	—	—	—	—	—	—	—	1	2	1	7
Poliomyelitis	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—
Encephalitis Lethargica	—	—	1	—	—	—	—	1	—	—	1	3	1	5	2
TOTALS : ALL CAUSES ...	39	149	455	229	63	252	123	56	42	52	98	540	140	1470	968

* The deaths at ages over two are placed among those from "Other Defined Diseases."

Deaths.

The classification of some deaths is modified in the light of fuller information obtained from the certifying practitioner in response to special inquiries. This possible source of discrepancy between the returns of the Registrar General and those compiled locally should be borne in mind, particularly in regard to the causes of death dealt with in Tables I and II.

The death-rates per 1,000 for the Administrative County and the Urban and Rural Districts thereof, and for England and Wales, were as follows:—

Localities.	General Death rate for 1921.	General Death rate for 1922.	General Death rate for 1923	General Death rate for 1924.	General Death rate for 1925.
Urban Districts	11·3	11·7	10·0	10·9	11·4
Rural Districts	12·2	13·0	11·3	13·2	11·9
Administrative County	11·6	12·2	10·6	11·8	11.6
England and Wales	12·1	12·9	11·6	12·2	12·2

It will be observed that the death-rate for the rural districts continues to exceed that for the urban districts, a circumstance which doubtless is sufficiently explained by the considerable exodus from the rural districts of persons from 15 to 30 years of age, among whom the death-rate is always exceptionally low.

The ordinary death-rate cannot be taken as a *true* index of the healthiness of a district, nor can it be justly compared with the rates of other sanitary areas, unless some allowance is made for the relative proportions of males and females at different ages in the districts compared.

For instance, in a district containing a large number of very young or very old people, the rate would be considerably higher than in a district consisting almost entirely of people of middle age, although the latter district might be less healthy than the former.

There is, therefore, a calculated corrective factor for each district which varies according to the sex and age distribution of the population of that district; the multiplication of the recorded death-rate of the district by this factor gives the death-rate which would obtain in that district if the sex and age distribution of the population of the district were in the same proportion as it is in the country as a whole—thus eliminating the accidental differences due to sex and age and affording a fair means of comparison and a truer test of the healthiness of the district. The death-rate so ascertained is known as the *corrected* death-rate.

The corrective factor for the whole County is 0·9064. So that in order to strictly compare the Death-rate for the County with that of England and Wales the recorded Death-rate must be multiplied by 0·9064. *The result is a corrected Death-rate for the County of 10·5, to compare with the Death-rate of England and Wales of 12·2.*

It will be seen from Table I. that although there were noteworthy decreases, as compared with the previous year, in the deaths from Influenza, Enteric Fever, Measles, Tuberculosis of the Lungs, Kidney Diseases and Cancer, there is an increased mortality from Premature Birth and Congenital Debility and Appendicitis, Heart Disease and Puerpural Sepsis.

The recorded Death-rates for Bedfordshire for 1925 were as follows :—

Urban Sanitary Districts :	Rate	Rural Sanitary Districts :	Rate
Bedford	10·9	Ampthill	13·0
Luton	10·8	Bedford...	11·4
Ampthill	18·3	Biggleswade	10·9
Biggleswade	11·3	Eaton Bray	14·6
Dunstable	13·7	Eaton Socon	12·5
Kempston	10·1	Luton	11·8
Leighton Buzzard ...	14·5		

It will be seen that the lowest recorded district death-rates are those for the towns of Kempston, Luton, Bedford and the Biggleswade Rural District, while the Ampthill Urban District and the Eaton Bray Rural District furnished the highest rates.

Infantile Mortality.

This may be calculated as a percentage of deaths under one year to total deaths, or as the proportion of deaths of children under one year to every 1,000 births. The latter is the method usually adopted, and forms the record known as *the rate of infantile mortality*

The infantile mortality per 1,000 births in the Urban and Rural Districts of the County, as well as that of England and Wales, are given below :—

Localities.	Infantile Mortality 1921	Infantile Mortality 1922	Infantile Mortality 1923	Infantile Mortality 1924	Infantile Mortality 1925
Urban Districts ...	75·9	69·9	54·8	58·2	73·1
Rural Districts ...	63·2	58·8	54·8	53·0	50·1
Administrative County	71·0	65·5	54·8	56·0	63·7
England and Wales ...	83·0	77·0	69·0	75·0	75·0

The deaths of infants amount to 8·7 per cent. of the total number of deaths at all ages, as against 7·7 per cent. in the preceding year.

The causes contributing to a high rate of infantile mortality are set out in Table I. It will be noted that of 212 children who died under the age of one year, 117 deaths were ascribed to prematurity, wasting, and congenital defects, and 33 to bronchitis and pneumonia, a total of 150 deaths resulting from these two groups.

Eleven of the deaths were of illegitimate children, which furnished a rate of infantile mortality among these children amounting to 84.

The Infant Mortality rate is one of which the County has reason to be proud. For the Five years 1921-1925 it was only 62. In my judgment a still further substantial reduction is mainly dependent upon the adoption of fuller measures of ante-natal work—for quite one-third of the present day mortality during the first 12 months of life takes place during the first month, and most of these deaths are due to ante-natal circumstances.

The rates of infant mortality in each of the Sanitary Districts of Bedfordshire for 1925, were as follows :—

Urban Sanitary Districts :	Rate	Rural Sanitary Districts :	Rate
Bedford	65·6	Ampthill	61·6
Luton	74·5	Bedford	27·6
Ampthill	43·5	Biggleswade	44·5
Biggleswade	70·0	Eaton Bray	68·2
Dunstable	88·1	Eaton Socon	70·2
Kempston	71·4	Luton	71·1
Leighton Buzzard ...	89·6		

The highest infantile mortality, was recorded in the Leighton Buzzard and Dunstable Urban Districts. The lowest occurred in the Bedford Rural District.

Senile Mortality.

The following Table shows the senile mortality in the Urban and Rural Districts, as indicated by the percentage of deaths over 75 years of age to total deaths :—

Localities.	Percentage of Total Deaths, 1925.
Urban Districts	30.0
Rural Districts	42.0
The County	35.0

The many persons dying at over 75 years of age is evidence of the fact that a high proportion of the population reaches old age. The proportion of deaths over 75 years of age in England and Wales is somewhat lower.

Cancer.

In the administrative County 301 deaths were certified in 1925 as due to cancer or other malignant disease, as against 329 in 1924.

The returns during the last 19 years have been as follows:—

Districts.	Mean of 5 Years, 1907-1911.	Mean of 5 Years, 1912-1916.	Mean of 5 Years, 1917-1921.	Year 1922.	1923.	1924.	1925.
Urban Districts.							
Ampthill	5	3	5	2	2	5	3
Bedford	40	41	52	42	50	61	50
Biggleswade ...	6	10	8	15	9	8	14
Dunstable	7	11	14	12	12	17	14
Kempston	5	5	6	3	6	3	6
Leighton Buzzard	7	11	9	8	11	9	8
Luton	42	48	52	75	79	63	75
Totals ...	112	129	146	157	169	166	170
Rural.							
Ampthill... ..	26	29	30	28	36	39	40
Bedford	19	29	26	34	26	38	33
Biggleswade ...	21	29	33	33	38	61	37
Eaton Bray ..	5	5	7	3	3	4	4
Eaton Socon ...	5	4	7	5	6	3	5
Luton	9	9	13	11	12	18	12
Totals ...	85	105	116	114	121	163	131
Grand Totals ...	197	234	262	271	290	329	301

The returns for the whole country maintain the increase in the mortality from malignant disease. The tendency to exceptional increase in the mortality of males has been noteworthy in the records of the last few years.

The crude cancer death-rates for the County of Bedfordshire or 1925 were as follows:—

For Urban Districts 1.32 per thousand living.
For Rural Districts 1.61 ,, ,,
For Whole County 1.43 ,, ,,
For England and Wales 1.33 per thousand living.

In 1925 the County Council authorised the insertion of educational paragraphs in the Bedfordshire press at an expenditure up to £50. The following is a specimen of the paragraphs which are now appearing at intervals :—

"At a discussion upon this disease, which recently took place at a meeting in London of the members of a well known medical Society, all present agreed that the death rate from cancer has steadily increased during the past 40 years and that if the disease could be more early recognised many cases could be cured. Cancer at the start is strictly localised and it may not cause pain or discomfort for many months ; but it often grows rapidly and even distant parts may then become affected. Any cause of local irritation continued for a long period may start cancer, especially at or past middle life. Owing to the increase in the disease in the United States of America, special cancer clinics, where free advice and treatment may be obtained, are being provided. Already the results are proving very valuable ; because many are going early for advice and proper treatment, and it is confidently anticipated by the medical men of that country that as the recognition of the need of early treatment grows and the means of proper treatment are made available to all, there will be a reduction in the death rate from this disease.'

It is calculated that there is an average loss of about one year before submitting to skilled treatment, and that not one person of ten comes sufficiently early for effective treatment.

Cancer is now more fatal than that other great scourge, Pulmonary Tuberculosis or Phthisis.

The Public needs to be warned against quacks who, as experts in pretence and promise encourage patients to expect relief till either their money is exhausted or the disease too far advanced for cure by operation or other recognised methods. **Bottles of medicine, and the application of ointments and paste cannot cure Cancer.**

Heart Disease.

The deaths from heart disease are on the increase not only in Bedfordshire but in the country as a whole.

The following are the death rates from heart disease for 1925 in Bedfordshire :—

Urban Districts	1·90	per thousand of population
Rural Districts	1·69	,, ,,
Whole County	1·82	,, ,,

As it exists in this country to-day rheumatic infection is one of the great infective diseases afflicting the children of the poorer classes. In the harm that it produces it is comparable only with such an infection as Tuberculosis.

In a report of a Special Committee of Enquiry into rheumatic heart disease in children, which Committee was appointed by the British Medical Association, it is maintained that damp living-rooms have a very important bearing upon the problem of the prevalence of rheumatic infection in this country.

In this connection Dr. Herdman's statement upon the subject in its reference to school children which is inserted on pp. 58 & 59 of this report will be read with interest.

Professional Nursing in the Home.

The County is fairly well provided with these nursing services. The Bedfordshire County Nursing Association is doing excellent work, and so is the Bedford Nursing Association which supplies nurses also to the Bedford Rural District. In Luton there is no Nursing Association, but many Churches employ a nurse for home-visiting. In the Biggleswade Urban District a Red Cross Medical Supply Depot has been established and this provides a considerable amount of nursing. The depot is in charge of one Sister and two V.A.D.'s. and is open daily from 10 to 11 a.m. for the dressing of wounds, and other cases requiring daily attention. Patients pay a small weekly fee, and are only received on the recommendation of doctors practicing in the district. Nursing appliances are provided for use in the sick room at a nominal charge. This depot is doing most valuable work.

MORTALITY FROM INFECTIOUS DISEASES.

Influenza.

The prevalence of Influenza was less during 1925 than in 1924; but in Bedfordshire 66 deaths were directly ascribed to it. The County death-rate from Influenza was 0·31; that for England and Wales was 0·32.

Variola and Vaccination.

The possibility of the introduction of this disease to Bedfordshire occasioned considerable anxiety throughout 1925 in view of the number of centres of infection which established themselves throughout England and Wales.

Recent experience impresses the fact that no large community can afford to go without the fullest means of coping with the spread of the disease at very short notice. The best means is vaccination ; but unfortunately nothing short of the presence of Small-pox will lead a considerable proportion of the community to avail themselves of this great protective measure. The next most important means of preventing spread is the prompt isolation in hospital of infected patients.

In an official publication of the Ministry of Health the public is reminded that the greatest diminution in small-pox since vaccination was introduced has been in the early years of life, in which there is most vaccination ; that in countries in which there is most vaccination and re-vaccination there is little small-pox ; that in places where small-pox prevails it attacks a much greater proportion of the un-vaccinated than of the vaccinated ; that in houses invaded by small-pox not nearly so many of the vaccinated inmates are attacked as of the unvaccinated, in proportion to their numbers; that the fatality rate amongst persons attacked by small-pox is much greater, age for age, among the unvaccinated than among the vaccinated; and that improved sanitation, however beneficial in itself, cannot account for these facts.

In England and Wales the notifications of small-pox for the past five years have been as follows :

Year.	Cases.	Year.	Cases.
1920	280	1923	2,504
1921	336	1924	3,784
1922	973	1925	5,354

The striking increase of prevalence since 1921 is shown in the table.

The type of small-pox during the past few years has been mild as compared with earlier times ; but this has not been invariably so. The old, more virulent form of small-pox may

return at any time, and the country must be prepared to meet a situation which it is not possible to foresee.

Fortunately those who so choose can by successful vaccination and re-vaccination make themselves and their families practically safe from small-pox.

Diphtheria.

During 1925, the death-rate from Diphtheria for the County exceeded that for England and Wales.

Districts.	Death Rate, 1921	Death Rate, 1922.	Death Rate. 1923.	Death Rate, 1924.	Death Rate. 1925.
Urban Districts ...	0·22	0·08	0·03	0·14	0·09
Rural Districts ...	0·13	0·11	0·06	0·01	0·06
The County ...	0·18	0·09	0·04	0·09	0·08

The death-rate for England and Wales for 1925 was 0·07 ; and the rates of notifications and deaths per thousand persons living show that, apart from all questions of improved treatment of actual patients, the liability of the general public to infection and the death risk from diphtheria have not fal en during recent years, in contradistinction to what is seen in scarlet fever.

I regard these facts as reproachful ; for during the past 20 years some very real advances have been made in medical knowledge upon how to prevent secondary infection from occuring in the homes of primary sufferers and of how to reduce, in great measure, the risk of death among those attacked. Were these two measures applied early whenever the disease makes its appearance, thousands of children could be protected from infection and many others saved from death yearly in Great Britain ; but both forms of protection involve the use of a vaccine, and there is still much prejudice among the masses against inoculations. The anti-toxin which reduces the virulence of the of the attack is very generally employed, and with strikingly good results ; but the toxine anti-toxine mixture which protects against infection is seldom administered to those at risk and who can be proved by test to be susceptible to the infection.

In most districts Antitoxin is provided free of cost in necessitous cases. This wise and inexpensive provision should be developed in all districts.

In the Ampthill Rural District, the Council defray the cost of Antitoxin when used for preventive purposes, in all cases, and pay the medical man administering same 2/6 if patient lives within the one-mile radius, and 1/- extra for each additional mile or portion of a mile. The same advantages are given to medical men when using Antitoxin as a curative agent where poor people are concerned.

So far as the prevention of this disease is concerned it is certain that the isolation of patients in a fever hospital is of little value if the infectious "contacts" and "carriers" are ignored.

Scarlet Fever.

As in 1924, there was no death from scarlet fever in the County in 1925 :—

	Death Rate, 1921.	Death Rate. 1922.	Death Rate. 1923.	Death Rate, 1924.	Death Rate 1925.
Urban Districts	0·01	0·02	0·00	0·00	0·00
Rural Districts	0·02	0·01	0·01	0·00	0·00
The County ...	0.02	0·01	0·00	0·00	0·00

The death rate for England and Wales in 1925 was 0·03.

As in 1924, there was comparatively little scarlet fever prevalence during 1925, and the cases were generally of a very mild type.

Like diphtheria the infection of this disease is in all probability most frequently spread by personal contact with mild unrecognised cases, and the circumstance that so many of the cases are very mild accounts for much of the spread of scarlet fever which is in evidence throughout the country. Notwithstanding the mildness of the attacks the disease remains a serious one, for there still remains the likelihood of kidney, heart, and ear complications arising.

It looks as if it will be possible in the near future to protect individuals from scarlet fever ; and if the people will allow their children to be so immunised, the result will be a considerable reduction in the prevalence of the disease.

Enteric Fever.

The death-rates from typhoid fever in the County, and the Urban and Rural Districts thereof, are shown below :—

	Death Rate, 1921.	Death Rate, 1922.	Death Rate. 1923.	Death Rate, 1924.	Death Rate, 1925.
Urban Districts	0·01	0·01	c·00	0·11	0·00
Rural Districts.	0·04	0·01	0·04	0·03	0·00
The County ...	0·02	0·01	0·01	0.08	0·00

The death-rate for England and Wales in 1925 was 0·01.

Puerperal Fever.

There were five deaths from this disease registered during the year. The death-rate, expressed as a rate per 1,000 registered births, was 1·5 as compared with 0·3 for the preceding year.

Measles.

Measles caused only 5 deaths in Bedfordshire during 1925. There were only a few localised outbreaks within the County.

	Death Rate, 1921.	Death Rate, 1922.	Death Rate. 1923.	Death Rate, 1924.	Death Rate, 1925.
Urban Districts	0 00	0·04	0·02	0·06	0·02
Rural Districts	0·00	0·02	0·02	0·03	0·02
The County ...	0·00	0·03	0·02	0·05	0·02

The death-rate for England and Wales in 1925 was 0·13.

While we are able to do but very little indeed to reduce its prevalence, the proportion of infected children who died from the disease has been reduced in recent years. It is safe to conclude that this saving of child life has resulted, in part, at least, from our Maternity and Child Welfare activities, and the extended provisions made during the past five years for nursing services. The making of hospital beds available for some of the worst cases in London is believed to have contributed to the lowering of the case mortality to a slight extent.

The fact that in good surroundings measles is so rarely fatal suggests that it should be possible to save most of the lives lost

from this disease. It is a comparatively trivial disease when the sufferers can be properly provided for. It is a serious disease, more especially from its complications and after consequences, among the poorer people. It is with such people that nursing services and advice can be a valuable life-saving measure.

The age of a child has an important influence on mortality—the death-rate lessening as the age increases. Therefore there is a great advantage in protecting very young children from attack, even if they are to suffer a year or so afterwards. Where early isolation is possible, as in the homes of the poor, the only practicable means of preventing other members of the family from catching measles is by protective vaccination, and it appears probable from recent researches that an effective vaccine will shortly be available. A very promising method is being tested in Glasgow.

Cerebro-Spinal Fever.

There were four deaths from this disease in Bedfordshire during 1925. A small supply of serum of value in connection with this disease is stored at the Shire Hall, and arrangements have been made for the examination of swabs from sufferers and contacts.

Acute Polio-Myelitis.

Three cases of acute polio-myelitis were notified in 1925. No death occurred from this disease.

Encephalitis Lethargica.

During 1925 seven deaths from this disease occurred.

This disease with its high attack-rate, independence of season, and preference for certain age periods, cannot be identified with certainty by bacteriological examination. The infection is given off from the upper respiratory tract. Certainly in town populations there appears to be as little prospect of checking infection by any practical measures as in the case of measles, but with both diseases it is possible to reduce mortality by a careful regard to the grave risks of complications.

After the sufferer appears to have recovered, or to be approaching complete recovery from this disease, serious alterations in the nervous system may appear and these may slowly increase

or diminish over a period of several years. These after-effects may take the form of mental or moral impairment, and such cases call for special educational and disciplinary provisions.

Whooping Cough.

The number of deaths registered during the year was 19; all of these deaths occurred in children under two years of age.

	Death Rate 1921.	Death Rate, 1922.	Death Rate, 1923.	Death Rate, 1924.	Death Rate, 1925.
Urban Districts	0.09	0·07	0·03	0·05	0·09
Rural Districts	0 05	0·22	0·11	0·11	0·09
The County ...	0·08	0·12	0·06	0·07	0·09

The death rate for England and Wales in 1925 was 0·15.

Diarrhœa and Enteritis.

There were only 11 deaths from this disease among children under two years of age. The death-rate is expressed as the proportion which the deaths under two years of age from this disease form to a thousand births. For the County the rate is 3·3, which compares favourably with the rate for England and Wales (8·4). In 1925 meteorological conditions favoured a low rate.

These conditions in young children are mainly due to an infection of the digestive tracts. Since 1906, with the exception of the Diarrhœa year of 1911, there has been a very remarkable decline in the prevalence of these conditions, notwithstanding the fact that the hot, dry summer of 1921 was entirely favourable to a high case-rate. This great reduction must be ascribed to our maternity and child welfare activities—and more especially to the great reduction to the risk of infection in the milk supply to infants.

There can be no questioning the fact that Hospital treatment of severe cases of these diseases saves many children who would receive neither adequate medical supervision nor nursing aid in their own homes, and in 1924 the Metropolitan Asylums Board made provision for the reception and treatment of a limited number of selected cases. More recently this provision has been somewhat increased.

The protection of food from flies and dust ; cleanliness in the home and of feeding utensils ; the covering and frequent removal of household rubbish, would save many of the lives lost from this complaint, which is more fatal in the Rural Districts than in the Urban.

Phthisis and Other Tubercular Diseases.

There was no noteworthy difference in the number of deaths registered from this cause in the County, as compared with the previous year.

From the number of deaths (144) it is safe to compute that there were over 700 sufferers from Phthisis within the County during 1925.

The following table shows the death-rates per 1,000 from Phthisis for the County and the Urban and Rural Districts :—

Localities.	Phthisis Death Rate per Thousand				
	1921	1922	1923	1924	1925
Urban Districts ...	0·80	0·93	0·73	0·85	0·70
Rural Districts ...	0·81	0·76	0·74	0·74	0·65
Administrative County	0·80	0·86	0·74	0·80	0·68

The Phthisis death-rate for England and Wales in 1925 was 0·85.

Chief Death-Rates in Bedfordshire, and England and Wales compared.

Annual Death-Rate per 1000 from all Causes and from Certain Diseases in 1925.

	All causes.	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever.	Diarrhœa. (under 2 yrs) to 1000births	Deaths und'r 1 year to 1000 births.
	1	3	4	5	6	7	8	9	10
England and Wales...	12·2	0·00	0·13	0·03	0·07	0·15	0·01	8·4	75
Bedfordshire ...	11·6	0·00	0·02	0·00	0·08	0·09	0·01	3·3	63·7

TABLE III.

THE COUNTY OF BEDFORD.

NOTIFIED DISEASES IN ADMINISTRATIVE AREAS, 1925.

	Administrative Areas,												
	Ampthill Urban	Ampthill Rural	Bedford Urban	Bedford Rural	Biggleswade Urban	Biggleswade Rural	Dunstable	Eaton Bray	Eaton Socon	Kempston	Leighton Buzzard	Luton Borough	Luton Rural
Diphtheria, including Membranous Croup	—	20	40	11	—	19	11	3	—	10	9	151	12
Erysipelas	1	7	9	2	1	5	—	—	1	2	—	14	1
Scarlet Fever	1	16	50	14	—	19	2	2	1	27	4	43	16
Enteric Fever	—	—	3	—	1	1	—	1	1	—	1	3	—
Puerperal Fever	—	—	2	1	—	—	—	—	—	—	—	1	—
Cerebro-Spinal Meningitis... ...	—	—	1	—	—	—	—	—	—	—	—	2	—
Acute Polio-Myelitis	—	—	1	1	—	—	—	1	—	—	—	—	—
Ophthalmia Neonatorum	—	1	5	1	—	1	—	—	—	—	—	4	1
Pulmonary Tuberculosis	5	22	47	20	6	31	15	3	4	9	9	105	26
Other forms of Tuberculosis ...	2	2	22	6	3	13	5	1	4	—	4	13	1
Pneumonia (Acute)	3	23	15	14	5	17	1	1	1	5	8	25	7
Encephalitis Lethargica	—	1	1	1	—	—	—	1	—	—	—	—	1
Small-Pox	—	—	4	—	—	—	—	—	—	—	—	3	—
TOTALS	12	92	200	71	16	106	31	13	12	53	35	364	65

When this table of notified diseases is compared with that of the previous year it is seen that there was an increase in the prevalence of Diphtheria (especially in the Borough of Luton) and Scarlet Fever. There was also an increase in the notifications of Pulmonary Tuberculosis during 1925.

During the year 1925 there were no considerable outbreaks of infectious disease, except in the Luton Borough, where 151 cases of Diphtheria were notified, 69 of whom were not removed to hospital. Minor outbreaks of Diphtheria and Scarlet Fever occurred in the Flitwick Parish of the Ampthill Rural District, and Scarlet Fever was somewhat prevalent in the Kempston Urban District. Outbreaks of Chicken-pox were recorded in the Eaton Bray Rural District, the Ampthill Rural District, and in the Borough of Bedford.

Dr. Willmer Phillips reports upon the outbreak of Small-pox which, fortunately and by his prompt action, was kept within small dimensions. In May 1925, he was asked by a doctor to see a pustular eruption in a man aged 32. On consultation it was decided that the patient had Small-pox, and he was removed to the small observation hut at Newnham.

The patient was employed at Luton but slept in Bedford, going to business daily by train. Enquiry failed to trace the actual source of infection, but he had slept one night at Rushden, on April 25th, and been present at a crowded meeting which was attended by many visitors from Kettering, where Small-pox had been present for several months. His family consisted of himself, his mother and brother, and two men lodgers working at the Queen's Engineering Works. All the four contacts were strongly urged to be vaccinated, but only the brother consented. All the men were suspended from work and were kept under observation.

It was decided at a special meeting of the Public Health Sub-Committee to proceed at once with the erection of the larger hospital for which plans had been prepared by the Borough Surveyor some months earlier, a local firm being under contract to erect it in a period of six working days from the completion of the concrete foundations, materials for which were always kept in readiness. The work was commenced the same day, Sunday, May 31st, and the building was finished by the evening of Monday, June 8th ; the furnishing was completed the next day, and the patients were installed by 5 p.m.

Two of the contacts developed infection, and a fourth patient a relative of the first one, but living in another house, and who had not been in direct personal contact with him, developed a slight indisposition together with a few spots, which were found to be due to mild small-pox.

The total number of vaccinations performed was 2,300, made up as follows :

By private practitioners—1,587 ; by the M.O.H.—713.

Dr. Kilham Roberts (Ampthill Rural District) reports as follows :—

"As usual, with the exception of the Woburn sub-district Vaccination has become practically a dead letter. This, no doubt, is due to the inability of the people to understand the scientific aspect of the question, combined with the ease with which exemption certificates can be obtained. In addition to this, there is the misrepresentation of the anti-vaccinationists. As the total number of Births is 292, and the Vaccinations 98, it shows a percentage of 32·9, which, although low, is higher than it has been for some years. This increase is no doubt due to the prevalence of Small-pox in various parts of the country. As I wrote last year, I think a series of Lectures on this subject, given periodically in each district, would have a beneficial effect."

Dr. Parbury (Bedford Rural District) makes the following important statement in reference to non-notifiable acute Infectious Diseases :—

"Arrangements have been made with the School Medical Officer for the various Schoolmasters and Mistresses to notify all cases of infectious diseases to me on a specified form giving full particulars of cases occurring in their respective schools. I can then keep in touch with the health of children and am cognisant of any epidemics that occur."

The following are the case-rates of attack to every 1,000 living :—

	Bedfordshire.	England & Wales.
Small-pox	0·00	0·14
Scarlet Fever	0·92	2·36
Diphtheria	1·34	1·23
Enteric Fever	0·05	0·07
Puerperal Fever	0·01	0·06
Erisipelas	0·20	0·39

Hospitals for Infectious Diseases.

In the County of Bedfordshire, with a population of 212,580 the number of beds now available for the isolation and treatment of persons suffering from infectious diseases (other than Small-pox) is 289, which is slightly over 1·3 beds per 1,000 of population.

It is customary in some quarters to question the utility of Isolation Hospitals ; and in areas where isolation is perfunctory, the Hospital management slipshod, and the accommodation insufficient there is, no doubt, justification for this attitude of mind.

The Isolation Hospital provision by Local Authorities is not always adequate, especially for these days when the crowded homes make satisfactory home-isolation less possible than formerly. As to non-Small-pox Isolation Hospitals, the old practice is still retained of providing for Scarlet Fever, even to the prejudice of Enteric fever ; while generally speaking no provision is made for isolating those acute diseases involving the central nervous system which have become more prevalent in recent years.

Dr. W. Archibald (Luton Borough) reports as follows :—

Infectious Diseases Hospital—Spittlesea.

"During the year the New Administrative Block was completed and opened by the Mayoress (Mrs. A. B. Attwood, J.P.), on 6th October. This building gives accommodation for the Staff of a Hospital of 100 beds, the anticipated size of the Institution when completed. A new Cubicle Block of four beds has also been built, and is proving most satisfactory. Plans are being prepared for a new Ward Block for sixteen beds, and work is to be commenced as soon as possible.

"The site of the new Home renders the old Scarlet Fever block unfit for use as a Ward on account of its proximity, and the need for replacement of the beds thus lost is pressing. The accommodation of the Hospital at the moment may be reckoned as follows :—

Typhoid Fever Wards (2)	10 beds
Diptheria Wards (2)	12 „
Scarlet Fever Wards (2)	10 „
Cubicle Block	4 „
	36

"**The number is considerably below the recognised requirements of a town of over 60,000 inhabitants.** The usual custom is to legislate for one bed per 1,000 persons, and the addition of the new Ward Block for sixteen patients will help to bring the figures up to this standard."

Small-pox Hospital Accommodation.

Ten years ago Bedfordshire was in a better position to cope with outbreaks of small-pox than is the case now; for during quite recent years there has been a reduction of hospital beds for the isolation of this disease; and so a previous provision of 66 beds has been reduced to about 56.

The circumstance that for the Town of Luton there is no Small-pox hospital provision is, in my opinion, deplorable. The prompt isolation of infected persons is an essential weapon for preventing the spread of this disease; and its absence may easily lead to a costly disaster to the community.

It is true that a temporary emergency hospital can be provided, equipped and occupied, under favourable weather conditions, in a few days; but these few days of delay may give facilities for the spread of the disease, and they may swell into two or three weeks in the winter-time (when Small-pox is generally most prevalent) unless a site and foundation have been prepared in advance. The Eaton Socon Rural District Council has combined with St. Neots Urban and Rural District Councils and hired and equipped a house at Gimber's End, near Kimbolton, which would be used for Small-pox Patients should the necessity arise.

DISINFECTION.

While all the facts appear to demonstrate very conclusively that in the large proportion of cases the individual becomes infected by direct contact with other individuals, and that the infective material on textile articles, floor surfaces, etc., plays a relatively small part in the dissemination of infectious disease, the relatively small part is one which we cannot afford to neglect, and it is capable of considerable reduction by making proper provision on the right lines.

Of all the provisions for disinfection which a sanitary authority can make there is no doubt that a steam disinfection apparatus for bedding, clothing, etc., and the distribution of a suitable liquid disinfectant (where it would not otherwise be provided) with full

instructions as to its use, for the necessary prompt disinfection when patients are nursed at home, are the most important.

The spray disinfection of room-surfaces, moreover, is more efficient than fumigation.

Bacteriological Diagnoses.

Bacteriological examinations are of great value for the purposes of judging the purity of drinking water, for facilitating that prompt diagnosis of certain communicable diseases which enables the earliest adoption of the necessary precautionary measures, and for ascertaining when children and others who have been exposed to the infection of, or who have suffered from diphtheria, may safely be allowed to mix with others.

This provision is now a general one throughout the county—to the extent of affording facilities to general practitioners for the diagnosis of diphtheria, enteric fever and tuberculosis.

There is no County Laboratory for Bedfordshire, but the Medical Officers of Health of the two large towns, Luton and Bedford, are both supplied with Laboratories and undertake the necessary bacteriological work. In three other Districts the Medical Officer of Health has made his own provisions and performs such examinations for a special remuneration from his District Council.

In other cases the material is forwarded to one of the existing Institutions prepared to undertake such work. The Institutions so acting are:—The Lister Institute, Chelsea Gardens S.W., and the Clinical Research Association, Watergate House, Adelphi, London, W.C., and the Counties Public Health Laboratory, London.

The County Medical Officer (Tuberculosis) is prepared to undertake this work so far as Tuberculosis is concerned.

School Closure on account of Infectious Disease.

Special visits have been made to a number of schools in the county during the year, on account of Diphtheria, Scarlet Fever, Measles and other diseases.

The following statement shows the number of schools closed for infectious diseases during the year, and the average number of days each school was closed.

	Number of Schools Closed.	Number of days closed.	Average Number of days Closed.
Influenza	1	10	10
Diphtheria	1	10	10
Mumps	2	8	4
	4	28	24

It will be noticed that there is a great falling off in the number of schools closed during the year when compared with previous years. The average number closed each year since 1919 (but excluding 1922 when many were closed on account of the Influenza epidemic) has been 27 ; this year the number is 4.

In previous years the School Medical Officer used to close schools on account of a fall in attendance at schools, due to epidemics; but in August, 1924, the Board sent out a circular saying that in future no schools should be closed for this reason. Since the Medical Officer of Health of the District is the proper person to close schools on health grounds, and it has been found that in most epidemics the closure of schools in country districts has little if any effect on the progress of the epidemic, the closure of schools has almost ceased in the county during the year.

Now, if the attendance of any school falls below 60 per cent. for the week, and this fall can be attributed to the prevalence of epidemic sickness, a certificate is issued to this effect.

Tuberculosis.

Tuberculosis as a cause of mortality has been still further reduced during 1921-25.

The circumstances which still operate against the reduction in the prevalence of this disease are :—The difficulty of securing accommodation for advanced cases ; the lack of proper housing conditions and the consequent impossibility in many cases of getting a separate bedroom for the sufferer ; the difficulties of securing a satisfactory measure of after-care supervision and assistance.

It would appear that the overcrowding and increasingly hard struggle for existence are rendering almost negatory the efforts of reducing the prevalence of this disease in some industrial communities.

The amount and frequency of infection are greatest in those consumptive families with whom, owing to poverty and its associated circumstances, the resistance to infection is often at its lowest.

The supreme importance of protecting young children against this infection is generally recognised, and of the circumstances responsible for reducing resistance under-nourishment is the chief.

The early recognition of infection and the skilled treatment of sufferers in sanatoria and outside of them is, of course, essential from the preventive standpoint; but I am convinced that next to improved social and industrial conditions, which will always continue to play the major part, must come the adoption of methods of dealing with those who are running special risks *in early life;* and until this is done no scheme for the reduction of Tuberculosis can satisfy.

There is only one alternative measure to the removal of young children who are at risk in their home, and that is a preventive vaccination, but we are by no means certain yet as to whether we have a useful and safe method of applying this means of protection. The removal of the source of infection, so very desirable when practicable, is likely to prove more difficult than the removal of a child at risk, for the sufferer is often contributing something, by light work, to the support of his family. Nevertheless, the power of compulsory removal and detention in hospital of a sufferer who is putting others at considerable risk, which has been conferred recently by the Public Health Act, 1925, is a valuable addition to the means of reducing the spread of infection.

The germ of the disease is known to be very widely diffused among our people, yet the actual disease is manifest in only an increasingly small proportion of those who have harboured the germ. Although, then, our special measures directed against the disease appear to be of little avail in protecting the community from the risks of exposure to the germ, they, with other factors concerned, are proving serviceable in reducing that dosage of infection which is necessary in many cases to produce the disease.

There can be no doubt that if the proximity to a sufferer is sufficiently prolonged, or often enough repeated, much dosage of infection will generally result in the transference of the disease. The dilution of infection is therefore very important, especially during childhood and adolescence. A considerable dosage of the germ can only be received indoors from an infective person.

The Public Health (Prevention of Tuberculosis) Regulations, 1925, provide that if a local authority, on the report in writing of the Medical Officer of Health, is satisfied that a person residing in its district who is engaged in any employment in connection with a dairy which would involve the milking of cows, the treatment of milk, or the handling of vessels used for containing milk, is suffering from Tuberculosis of the respiratory tract and is in an infectious state, it may by notice in writing signed by the Clerk or the Medical Officer of Health, require such person to discontinue his employment or occupation on or before the date specified in the notice, such date being not less than 7 days after the service of such notice. Powers are given to a person who deems himself aggrieved by the requirements of a local authority under the regulations to appeal to a Court of Summary Jurisdiction, which may make such order in the matter as may seem equitable to them and may award costs.

It was not necessary to take any action under these regulations in 1925.

It is scarcely necessary to direct attention to the importance in the interest of all concerned, of an early diagnosis and notification of this disease. Where a definite diagnosis of a suspected case is difficult, the Tuberculosis Officer provided under the County Tuberculosis scheme is available for consultation, and full facilities are provided for assistance in diagnosis.

If in any particular case, the practitioner considers that the circumstances are such as to render it unnecessary or contrary to the interests of the patient for the home to be visited by an Official Medical Officer or his Assistant, any such visits would be dispensed with by arrangement with the Officers concerned.

Many deaths from this disease are only notified within a month of death. There can be no doubt that a considerable amount of Tuberculosis still goes unnotified and that many contacts do not submit to examination. The principle reasons

for delaying notification, and for non-notification, are probably the failure on the part of patients to consult a doctor until late in the disease.

Artificial sunlight treatment has been adopted during the past year or two in connection with the working of many tuberculosis and maternity and child welfare schemes. It is certain that the treatment, if appropriately applied, is often beneficial, at least for a time ; but it is not unlikely that the high claims made as to its value will prove to have been somewhat exaggerated as our experience extends.

In discussing non-pulmonary tuberculosis the need for the veterinary inspection of cows at short and regular intervals is emphasised by several Medical Officers of Health ; and the view is expressed that this can be most efficiently and economically performed by County Councils.

Dr. Welch, the Tuberculosis Medical Officer of the County Council, has drawn up the following statement, for the purpose of this Report :—

"At the request of the Ministry of Health, the following report takes the form of a Survey Report, and is so arranged as to give particulars of all matters on which they desire to be informed."

Tuberculosis Scheme.

The following Medical Officers are in the service of the Council :—

County Tuberculosis Officer	Cuthbert G. Welch, M.D., (Lond). D.P.H., (Oxon).
Assistant Tuberculosis Officer	George A. Hayman, M.R.C.S., L.R.C.P.

Dispensaries provided by the Bedfordshire County Council:—

BEDFORD	-	61, Harpur Street, Bedford.
LUTON	-	17, Church Street, Luton.
BIGGLESWADE		St. Andrew's Rooms, Biggleswade.

Residential Institution :—Mogerhanger Park Sanatorium.

Medical Superintendent - Dr. C. G. Welch.

"Accommodation comprises 84 beds, and provides for the isolation and treatment of cases of advanced pulmonary tuberculosis, as well as the treatment of sanatorium cases, and suitable cases of non-pulmonary glandular tuberculosis."

"Institutional treatment is carried out at the Council's sanatorium on conservative lines; where necessary, the assistance of X-Ray examinations is obtained. A trial has been made of new forms of treatment which have been vouched for by responsible medical authorities, but I am unable to report any success from them and it still remains for a specific cure for tnberculosis to be discovered, the best results having been obtained by a combination of fresh air, suitable diet, rest, and exercise under strict supervision with the necessary symptomatic medical treatment."

"No occasion has arisen on which it has been necessary for the County Council to take action under the Public Health (Prevention of Tuberculosis) Regulations, 1925, the necessary steps having been taken by the local authorities in whose area the individuals referred to in the Regulations reside.

Public Health Act, 1925, Section 62.

"It was not fonnd necessary during 1925 to apply for any orders for the compulsory removal to hospital of persons suffering from tuberculosis, cases of the disease specified under this section having voluntarily agreed to removal to the Council's institution.

Dental Treatment.

"Dental treatment has not been provided by the Council, patients themselves making the necessary arrangements for such treatment, many insured persons receiving financial assistance from their approved societies.

Contacts.

"All 'contacts' are examined by one of the tuberculosis officers, and arrangements made for their systematic supervision, a register of these individuals being kept and use made of the section dealing with 'contacts' which is incorporated in the Report upon Environmental Conditions (Form B.) of sufferers, this being completed in every instance as a result of a visit by either one of the Council's Medical Officers of Health or Health Visitors. During the year 4,344 house visits were paid by the Council's six Health Visitors.

'There is no general provision of nursing for patients living at home, the necessary nursing as a rule being obtained through the District Nursing Associations, to which patients may become members on payment of a modest annual subscription.

"Extra nourishment is granted to suitable cases, all applications being carefully considered by a special sub-committee appointed for this purpose. The extra nourishment granted by this committee during the past year amounted to £252 11*s.* 7*d.*

"Cases of tuberculosis of the bones, joints, etc., in adults and children are dealt with as far as possible by securing their admission to institutions recognised by the Ministry of Health for this purpose. Among those made use of by the Council are the following :—

The Shropshire Orthopædic Hospital.
Royal Sea-Bathing Hospital, Margate.
United Services Fund Hospital, Heatherwood. Ascot.
Lord Mayor Treloar Cripples' Hospital & College, Alton.
Royal National Orthopædic Hospital (Country Branch),
Alexandra Hospital, Swanley, Kent. [Stanmore.
St. George's Convalescent Branch Hospital, Wimbledon.
St. Anthony's Hospital, Cheam.

"In cases where the circumstances of the patients make it impossible for them to bear the cost of surgical appliances, the necessary expenditure is met by the County Council. With regard to many insured persons the cost is shared with the approved society to which the individual belongs.

"The question of the after care of patients, including the finding of suitable employment for them, is a most difficult one. Where possible, however, efforts are made in this direction, but the large amount of unemployment amongst the able-bodied, it need hardly be pointed out, makes it increasingly difficult to obtain posts suitable for ex-patients.

"All cases on the Tuberculosis Register are visited from time to time by the Council's Health Visitors ; and visits and examinations are made by the Tuberculosis Officers as and when required.

"Shelters have been extensively used—especially in the country districts—and have proved of great service, particularly to patients who have become used to sleeping in plenty of fresh

air whilst in sanatoria. Special visits are made to patients to whom shelters have been loaned to ascertain that they are being made proper use of.

"As in previous years, the Minlstry of Pensions have made use of my services as Tuberculosis Referee for the Bedfordshire area. Cases have been referred to me for examination and report by the Medical Pensions Boards; and the Local Area Officers of the Ministry have received reports from me as to the condition, progress etc., of Pensioners suffering from tuberculosis, and recommendations as to the form of treatment most appropriate in each case.

"The closest co-operation exists between your Tuberculosis Officer and the School Medical Officers in the County; all children found by the latter either to be suffering from tuberculosis, or suspected to be so affected are referred to the Tuberculosis Officer for examination and necessary action. The same co-operation exists with regard to the general hospitals at Bedford and Luton. I am gratified to be able to report that the medical practitioners of Bedfordshire continue to make full use of the facilities afforded them under the Council's Tuberculosis Scheme; and I gladly avail myself of this opportunity of expressing to them my sincere thanks for their valuable heip, and testitying to the cordial relations which exist between them and the Public Health Department.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from 4th January, 1925, to the 2nd January, 1926, in the COUNTY OF BEDFORD.

AGE—PERIODS.	NOTIFICATIONS ON FORM A.												
	Number of Primary Notifications.												Total Notifications on Form A.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upw'rds	Total Primary Notifications.	
Pulmonary Males ...	...	3	9	5	31	13	38	14	18	10	2	143	148
„ Females ..	...	2	6	7	21	32	36	24	17	5	4	154	162
Non-pulmonary Males...	...	6	12	7	5	1	6	2	...	...	...	39	39
„ „ Females	...	2	11	7	4	4	3	2	2	2	1	38	41

AGE—PERIODS.	NOTIFICATIONS ON FORM B.					NOTIFICATIONS ON FORM C.	
	Number of Primary Notifications.				Total Notifications on Form B.	Poor Law Institution.	Sanatoria.
	Under 5	5 to 10	10 to 15	Total Primary Notifications.			
Pulmonary Males ...	...	...	...	..	...	1	80
„ Females ...	...	...	...	...	.	...	80
Non-pulmonary Males...	...	...	...	...	...	1	15
„ Females	...	...	...	...	...	...	4

Public Health (Tuberculosis) Regulations, 1924.

Number of cases of Tuberculosis remaining on the Registers of Notifications kept by District Medical Officers of Health in the County on the 31st December, 1925.

Total Cases.	Pulmonary.			Non-Pulmonary		
	Males	Females	Total	Males	Females	Total
1990	748	783	1531	223	236	459

TABLE I.

Return showing the work of the Dispensaries during the year 1925.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—New Cases examined during the year (excluding contacts) :—												
(*a*) Definitely tuberculous	76	92	13	13	7	7	15	13	83	99	28	26
(*b*) Doubtfully tuberculous	...	...	...	...	...	...	...	...	1	2	2	1
(*c*) Non-tuberculous	...	...	...	...	...	...	...	...	48	49	34	28
B.—Contacts examined during the year :—												
(*a*) Definitely tuberculous	19	38	9	7	...	...	6	4	19	38	15	11
(*b*) Doubtfully tuberculous	...	...	...	...	...	...	...	...	1	1	3	1
(*c*) Non-tuberculous	...	...	...	...	...	...	...	...	15	15	42	50
C.—Cases written off the Dispensary Register as												
(*a*) Cured	152	69	23	28	20	10	37	32	172	79	60	60
(*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)	...	...	...	...	...	...	...	...	82	83	108	102
D.—Number of Persons on Dispensary Register on December 31st :—												
(*a*) Diagnosis completed	345	331	62	61	29	16	62	47	374	347	128	108
(*b*) Diagnosis not completed	...	...	...	...	...	...	...	...	2	3	5	2

1. Number of persons on Dispensary Register on January 1st	1561
2. Number of patients transferred from other areas and of "lost sight of" cases returned	10
3. Number of patients transferred to other areas and cases "lost sight of"	375
4. Died during the year	97
5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeds 2 months	0
6. Number of attendances at the Dispensaries (including Contacts)	4313
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	0
8. Number of attendances at General Hospitals or other Institutions approved for the purpose, of patients for	
(*a*) "Light" treatment	72
(*b*) Other special forms of treatment ...	0
9. Number of patients to whom Dental treatment was given at, or in connection with, the Dispensaries	2
10. Number of consultations with medical practitioners :—	
(*a*) At Homes of Applicants	...
(*b*) Otherwise	...
11. Number of other visits by Tuberculosis Officers to Homes	...
12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	4344
13. Number of	
(*a*) Specimens of sputum &c. examined	416
(*b*) X-ray examinations made in connection with Dispensary work	4
14. Number of Insured Persons on Dispensary Register on the 31st December ...	538
15. Number of Insured Persons under Domiciliary Treatment on 31st December ...	124
16. Number of reports received during the year in respect of Insured Persons :—	
(*a*) Form G.P. 17	1
(*b*) Form G.P. 36	530

TABLE II.

RESIDENTAL INSTITUTIONS.

(A) Average Number of Beds available for Patients during the year 1925.

	Observation.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
		"Sanatorium Beds."	"Hospital" Beds.	Diseases of Bones and Joints.	Other Conditions.	
Adult Males	2	28	8	5	...	43
Adult Females	2	27	10	2	...	41
Children under 15	1	6	...	14	1	22
Total	5	61	18	21*	1*	106

* *These figures represent the number of Non-Pulmonary cases which received treatment at Non-Pulmonary Institutions during 1925.*

Note :—When accommodation is available, and required, Non-Pulmonary (Gland) cases are admitted to the Sanatorium Beds at the Bedfordshire County Sanatorium.

(B) Return showing the extent of Residential Treatment during the year 1925.

			In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients	Adults	M.	31	70	68	7	28
		F.	35	63	57	12	26
	Children	M.	4	18	11	1	8
		F.	6	17	15	1	10
Number of Observation Cases ...	Adults	M.	...	...	...	...	...
		F.	...	...	...	...	...
	Children	M.	1	...	1	...	...
		F.	...	...	...	...	...
Total ...			77	168	152	21	72

TABLE III.

Return showing the immediate results of treatment of patients* and of observations of doubtful cases discharged from Residental Institutions during the year 1925.

Classification on admission to the Institution.		Condition at time of Discharge.	Duration of Residential Treatment in the Institution.												Total.
			Under 3 months.			3-6 months.			6-12 months.			More than 12 months.			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis.	Class T.B. minus.	Quiescent	...	3	5	3	11	3	1	2	2	...	...	...	30
		Improved	1	1	1	2	2	...	2	2	...	...	...	...	11
		No material improvement ...	2	1	...	1	1	...	...	...	...	...	...	...	5
		Died in Institution	1	...	...	...	...	...	...	...	...	...	...	...	1
	Class T.B. plus Group 1.	Quiescent	...	1	...	6	5	4	2	2	1	...	...	...	21
		Improved	...	2	...	4	2	...	2	...	...	...	...	...	10
		No material improvement ...	1	...	...	...	...	...	...	...	...	...	...	...	1
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...
	Class T.B. plus Group 2.	Quiescent	2	...	...	1	4	...	4	2	...	...	...	...	13
		Improved	5	4	...	5	3	...	3	1	1	...	1	...	23
		No material improvement ...	2	1	...	8	3	...	4	1	...	...	...	...	19
		Died in Institution	...	1	...	...	...	...	1	...	...	...	...	...	2
	Class T.B. plus Group 3.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	...	...	...	...	...	...	2	...	...	...	1	...	3
		No material improvement ...	1	1	...	1	1	...	...	...	...	...	...	...	4
		Died in Institution	4	7	1	...	2	...	...	2	...	1	...	...	17

Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent or Arrested	...	...	...	...	...	...	...	...	...	...	...	...	1	1
		Improved	...	...	...	...	...	1	...	...	1	...	...	1	...	...	3
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	Abdominal	Quiescent or Arrested	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
		Improved	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Organs.	Quiescent or Arrested	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material Improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Peripheral Glands.	Quiescent or Arrested	...	...	...	...	...	3	...	...	4	...	...	...	...	7	
		Improved	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

		Under 1 week	1-2 weeks.	2-4 weeks.	More than 4 weeks.	
Observation for purpose of Diagnosis	Tuberculous	... ...	... ...	... ...	... ...	...
	Non-tuberculous	... ...	... ...	... ...	 1	1
	Doubtful	... ...	... ...	... ...	... ...	...

* It should be borne in mind that the definition of " patient " does not include persons in whom a definite diagnosis of tuberculosis has not been made.

Maternity and Child-Welfare Work.

As in past years, Maternity and Child Welfare Work has taken a prominent place in the public health activities of the Council, and I have pleasure in testifying to the fact that all those employed upon it have rendered good services.

During the year, 24,094 visits were paid by the five Health Visitors, of which 1,791 were primary visits and 12,887 following-up visits ; 518 visits were paid to expectant mothers ; and 8,898 were visits to children 1 to 5 years of age.

At each of the 8 Centres one of the Council's Health Visitors is an active worker. All the expenses of these Centres are defrayed by the County Council, and the Ministry of Health pays an annual grant amounting to half the total expenditure. At four of these centres the County Council does not bear any of the expenses in respect of the premises used.

During the year the sum of £94 - 3 - 6 was spent upon the supply of free milk to infants and nursing mothers. A special sub-committee investigates each case.

No dental work is undertaken in connection with Maternity and Infant Welfare. It is desirable to make provision for such work, if only upon a very small scale.

The following fact points to the high importance of Ante-Natal work in the County of Bedfordshire, as elsewhere :—In a total of 212 deaths of Infants under one year of age 56 per cent. (119) were due to Congenital Debility and Premature Births, and the death-rate from these causes is very similar in both the Urban and Rural Districts of the County. The prevention of the loss of life from this cause must depend almost entirely upon Ante-Natal advice and care ; and medical practitioners and midwives must co-operate in developing this undoubtedly difficult work.

To this desirable end the "Bedfordshire Scheme" is working, and with gratifying results. Efforts have been, and are still being, made to fully inform midwives upon *Ante-natal* Hygiene and to impress them with their full responsibilities to the expectant mothers who engage them ; and the County Council offers 5/- for every case in respect to which they undertake and discharge certain well-defined duties. The scheme received the sanction of the Ministry of Health in 1921, and it has worked in an entirely smooth manner, without difficulty or complaint.

Ante-Natal Work by Midwives during the Year 1925.

Number of cases reported on by approved Midwives		374
Stillborn		8
Of the 366 babies born living, 4 died within 10 days of birth		
Of the remaining 362 babies the following were :—		
Breast fed		350
Partly breast fed		3
Not breast fed		9
Reason for not breast feeding :—		
Unwillingness of mother	1	
Illness of mother	4	
Mother had no milk	4	
	—	9

In the *Borough of Bedford* there are two 'Centres' each of which holds one Session a week (on Tuesdays and Thursdays respectively) in the afternoon, on the premises of the Free Library in Harpur Street. The Medical Officer of Health attends each meeting for consultations, and there is a rota of Ladies who help the Health Visitor in the clerical work. The attendances numbered 4,004. Dr. Willmer Phillips reports that:

"There is room for the development of the dental treatment of expectant mothers. The purchase of dentures is beyond the means of many or even most of the patients, and they are averse to treatment for this reason and often decline it when offered, though a small sum has been set aside by the M. and I.W. Committee for the purpose.

"During the year the Health Visitors paid 1,145 visits to infants under one year, of which 593 were first visits. 210 visits were paid to expectant mothers, and 1,240 to children between one and four years, the total number of visits being 2,595."

In the *Borough of Luton* there are five Maternity and Child Welfare Centres situated in Halls rented for the purpose.

Dr. W. Archibald and the Part-time Medical Officer render valuable services at these centres, and in the year 1925 there were 4246 consultations at the centres and 8099 infant weighings

An Infant Welfare Centre is conducted in the town of Leighton Buzzard, a lady Health Visitor being present each week. She is assisted by local nurses and several ladies in the town. It is very popular. The Medical Officer (Dr. J. Grogono) attends.

The mortality for the first month of life has been but little reduced, the saving of infant lives taking place mainly in the subsequent months. Approximately two-thirds of the deaths occurring in the first month of life are taking place in the first week of life from such causes as prematurity, congenital debility and malformation. It is only by the adoption of more ante-natal work that these very early deaths will be reduced substantially.

The fact that there is no decrease in the deaths resulting from Premature Birth is a discouraging circumstance which emerges from the study of the particulars of our infant mortality. It is not easy to account for this. Such deaths should, having regard to all that has been done in recent years, be on the decrease.

The developed ante-natal work that can reduce the number of deaths in the first month of life should bring about a reduction in the considerable number of premature and still-births, 50 per cent. of which are believed to be preventable. Under the Notification of Births Act, 1907, all births, even those of dead infants, which occur after 28 weeks of gestation must be notified to the Medical Officer of Health. It is realised that there are reasons for hesitating to demand notification of much earlier deaths, but it would be of material assistance to the maternity and child welfare work if the period of 28 weeks could be reduced to 20 or to even 24. More ante-natal care and supervision, embracing the provision of more Maternity Hospitals and Homes is held to be the proper solution of the problem of reducing the still-birth rate and the death-rate of the first months of life.

Not only is there an appreciable number of women whose confinements will certainly be difficult and abnormal, but there is also a much larger number of women in whose cases some slight departure from the normal may be anticipated, skilled treatment of whom at the right time may prevent injury to mother and child. A considerable saving of infant, as well as maternal life and injury might be effected if facilities for such treatment were provided.

Venereal Diseases.

The measures of publicity, which have been taken for several years, were continued in 1925. These include an advertisement each week in one or other of the Journals circulating within the County, in which the consequences of Venereal Disease and the

neglect of early skilled treatment are impressed, and the days and hours and places where treatment can be obtained free of charge and with every regard to privacy are announced: the distribution among the male workers of factories, workshops, offices, etc., of a handbill entitled, "What Every Man Should Know"; the affixing of posters of advice and information in public urinals and w.c.'s, and in the lavatories of both sexes in factories and workshops. In addition to these measures, films "Motherhood," "The Shadow," "Public Health Twins," "Whatsoever a Man Soweth," "Waste") and addresses, were shown and spoken to both at Bedford and Luton in March. The films and speakers were provided by the British Social Hygiene Council, and the audiences were numerous and appreciative. There was a large working-class element, of both sexes, in the audiences. Literature was distributed freely, and there was a good demand for that which was on sale.

Allowing for the increase, which is often reported, in the number of cases presenting themselves at the clinics who are found not to be suffering from Venereal disease, it would appear that there was some diminution in the prevalence of these diseases, more especially of syphilis; and the large number of non-venereal patients presenting themselves for examination may be taken as evidence of a growing appreciation of the serious nature and grave after-effects of these diseases.

The man in the street has been taught to regard gonorrhœa much more seriously nowadays than formerly. Except in its early stages, it is exceedingly difficult to eradicate, and in females especially it is frequently incurable. At the present day it is a more important disease than syphilis and presents problems of far greater complexity.

The facilities made for the intermediate treatment of Gonorrhæa are appreciated. Anybody who is skilled in the treatment of Gonorrhæa knows that it is far better that most of the treatment should be carried out at the centre than at home. Often enough the treatment cannot be carried out at home. A man, perhaps, is living in lodgings, and it is very difficult for him to irrigate, or even to inject, himself; for a woman it is still more difficult, and even if she has a room to herself and a douche, she cannot do as well for herself as can the centres for her.

It might be explained that the reduction in these diseases is due to the fact that more patients suffering from Venereal Disease are going to private practitioners, or that there has lately been more concealment of syphilis; but, from enquiries, we believe this is not the explanation. For instance, practitioners are not taking more than about one-fifth of the arseno-

benzol which is for the use of treatment for syphilis ; and altogether, we think that the reduction of the cases of syphilis reporting at the centres for the first time, represents a real reduction in the incidence of syphilis. With regard to the new cases, I may mention that quite a high proportion of these are not suffering from recent infections.

The average man, not realising the course of Venereal Disease, is apt to attend at the centre only until all his symptoms have gone, and to discontinue just as soon as his discomfort or disfigurement has been relieved. To counteract this, in the treatment centres and, of course, by the propaganda of the Council, the public is continually being urged to persevere with attendance long after all the systems have disappeared. This educative work is, I think, reflected in the increase in the number of attendances, though the actual number of cases has decreased.

During the year the Council contributed £21 to the National Council for combating venereal diseases : towards the cost of their propaganda work.

More requests are now being made by medical practitioners for Wassermann outfits so that they can take specimens of blood from private patients, while in other cases patients are sent to the Clinics for diagnosis or treatment.

Dr. R. Herdman reports that the work of the Clinics at Bedford and Luton has continued to run smoothly and satisfactorily.

During the year it was judged desirable to circulate the following letter among the medical practitioners of the County.

Dear Sir,

Venereal Diseases.

May we point out that the County Council has in operation the following arrangements for the Free Diagnosis and treatment of Venereal Diseases :—

GONORRHŒA.—Medical Practitioners desirous of having smears of discharge examined for the detection of Gonococci can have this done (free) by sending the specimen to the County M.O.H., Shire Hall, Bedford.

SYPHILIS.—Outfits, with directions for taking specimens of blood for Wasserman Tests, can be obtained free on applying to the Shire Hall, Bedford, or to the V.D. Officer, County Hospital, Bedford, or Bute Hospital, Luton.

Should it be more convenient, patients can be sent to the Venereal Diseases Centres at Bedford or Luton, at the hours mentioned on the accompanying card, when materials for testing can be taken from them.

The Venereal Diseases Medical Officer is always willing to confer with general practitioners upon the diagnosis or treatment of Venereal Diseases, whenever his opinion is desired.

Yours faithfully,

HENRY KENWOOD,
County Medical Officer of Health.

RONALD T. HERDMAN,
Venereal Diseases Medical Officer.

Attendances at the Venereal Diseases Clinics during 1925 :—

	BEDFORD				LUTON			
	Syphilis		Gonorrhœa		Syphilis		Gonorrhœa	
	M	F	M	F	M	F	M	F
Number of Patients who were under treatment on 1st Jan., 1925	11	9	14	9	21	12	22	9
Number of New Patients in 1925 who were found to be suffering from ...	14	6	34	10	11	11	42	8
Number of Patients under treatment on Dec. 31st, 1925	12	11	20	10	14	9	16	8
Total Attendances in 1925 of all patients suffering from	283	204	575	205	319	222	824	206

71 cases other than Venereal also attended the Clinics for the purpose of diagnosis in 1925 with a total number of 156 attendances.

125 specimens of blood were taken for the purpose of Wassermann Reactions.

30 Patients from outside the County attended the Clinics, with a total of 288 attendances.

6 Patients suffering from Soft Chancre attended the Clinics, with a total of 51 attendances.

The total number of attendances of cases at the 2 Clinics is slightly below that for 1924.

The number of General Practitioners of medicine within the county who are qualified to receive Salvarsan, etc., for the treatment of Syphilis free of cost, in accordance with the directions of the Ministry of Health, is now eight.

THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

Among the 6,899 children examined 1,875 were found who were recommended to have treatment for some defect; this is 250 more children than last year, and the total number of defects amongst these children was 2,044, which is an increase of 300 over the numbers of last year.

Of the 5,087 children who were examined as routines, 22·03 per cent. required treatment; while 21 per cent. of those examined as specials or re-examinations were recommended to have treatment, excluding dental defects and uncleanliness. This shows the importance of the examination of special children picked out by teachers or whose parents have specially asked to have them examined, and also of the re-examination of children previously found to have defects, to see whether they still require attention, as the percentage requiring treatment amongst these was nearly as large as that found in the routine cases.

The defects found are classified in the following table :—

Defective Vision and Squint ...	in	256	children
Eye Disease	„	24	„
Enlarged Tonsils	„	58	„
Adenoids	„	33	„
Enlarged Tonsils and Adenoids ...	„	161	„
Diseases of the Ear and Deafness ...	„	124	„
Diseases of the Skin	„	75	„
Decayed Teeth	„	271	„
Verminous conditions	„	170	„
Debility (defective nutrition) ...	„	239	„
Anæmia	„	416	„
Various forms of Tuberculosis ...	„	41	„
Other Diseases	„	176	„
Total	2044 defects.		

The number of defects treated was 1283 (not including cases of verminous heads) which gives a percentage of 68·46.

Extract from the Report of Dr. Herdman, School Medical Officer.

General Health of the Scholars.

"During the last quarter of 1924 there was very little sickness amongst the school children with the exception of Mumps at two schools near Bedford. About the middle of January of this year, however, Mumps appeared in a number of other schools in the County, and by the end of February there was the largest epidemic of Mumps that there had been in the County for many years. Twenty-six villages were affected by that time, and the natural shopping centre for 25 of these villages was Bedford, so that propably the epidemic was started by people coming from the villages into Bedford during the Christmas holidays, and meeting people from the infected villages.

"On the top of this came Influenza, still more pulling down the health of the children, so that in the first quarter of the year I reported that the general health of a large number of the children examined, especially in the Infants' Schools, was much below the usual standard.

"Mumps continued in the County during the whole of the year, but during the autumn and winter the cases were usually much milder than in the early stages of the epidemic.

"Measles and Whooping Cough have also been prevalent at some of the schools in the County, chiefly Infants' Schools, consequently the average attendance of children at schools in all quarters of the year has been below that of last year.

"Owing to these epidemics this has not been a good year for the health of the children, and so it is gratifying to find that, in spite of this, the height and weight of the Entrants and Leavers is markedly better than that of the pre-war children. The children born in 1920, when there was the highest birth rate that there has been for many years, comprised nearly a half of the Entrants examined in this year and last year, and these children, as regards height and weight, were found to be as good as any and better than most of the Entrants examined since medical inspection started in the County. They averaged nearly 1-inch taller and 1-lb. heavier than the average pre-war child of the

same age. The same condition has also been found amongst the Leavers; there is a marked improvement shown on the pre-war child.

"The amount of work to be done in the School Medical Service has steadily and greatly increased since the start in 1908

"In 1911 the re-examination of children, who had been found at previous examination to be suffering from defects, was initiated, and during the year 440 children were thus re-examined. Each year the number of children re-examined increased till in 1914 it was over 1000, and in the last few years it has averaged over 1100 per year.

"In 1919 a third age group, *i.e.*, the children between 8 and 9 years of age, was added by the Board to the regular routine examinations, so that while in 1910 the number of children examined was 4322 and in 1911 was 4484 including re-examinations, the numbers have now risen to 6721 in 1924 and 6899 in 1925. That is to say 50 per cent. more children have now got to be examined in the year than was the case in 1911.

"In 1909 79 per cent. of those examined required treatment, which Professor Kenwood states compared favourably with the rest of England, in 1914 this had fallen to 37 per cent., while in 1925 only 22 per cent. of the children examined in Bedfordshire required treatment, which is about the average for the whole of England at the present time.

"This improvement is mostly to be found in the older children who have been under supervision all their school life; for while before the war the large majority of those requiring treatment were the children leaving school, now the number of leavers requiring treatment is just about the same as that of the entrants, the majority of serious defects have already been attended to after the child has been inspected as an entrant, intermediate, or as a special.

"Once parents began to really appreciate the value of medical inspection it was found that while the number of children requiring treatment steadily fell, the number of those obtaining treatment rose, so that the percentage of under 40 per cent. obtaining treatment in the first few years of inspection has now risen to about 70 per cent.

"The enthuiastic co-operation of teachers in getting the parents of their scholars to have them treated, has contributed very largely to the increased percentage treated.

The Drying of Wet Clothes in Schools During Winter.

"While it would no doubt be of some advantage to the children to have their overcoats, that have got wet coming to school in the morning, dried during the day, so that they will not be wet when put on again to go home in the afternoon, this is impossible in the usual country school. What however would be of much greater advantage, and more useful in reference to the health of the children, would be facilities for drying boots and stockings, so that the children would not have their feet wet most of the day. This has a distinctly lowering effect on the vitality of the child and makes it more likely to contract colds or any other disease that is going about. It especially has a very injurious effect on all children who suffer from Rheumatism, and it is now becoming more and more recognised that Rheumatism is a disease of childhood. It is believed that about half of all heart disease starts in childhood, between the ages of 5 and 15, and that most of this heart disease in children is due to Rheumatism. As one-eighth of the deaths in the community are due to Heart Disease, it is easily seen that the prevention of Rheumatism amongst children is a most important subject. When a child has had Rheumatic Fever and its heart damaged by this illness, it is usually looked after carefully for years after, but the other form Rheumatism that also starts during school age, and also causes Heart Disease, is a seemingly mild condition at first, showing itself by such things as growing pains, slight attacks of St. Vitus Dance, Anæmia, etc. Unfortunately not sufficient notice is taken of this at first and every time that the child has its vitality depressed, as by catching cold or getting wet and being allowed to stay so, the Rheumatism has an opportunity of gaining fresh ground. It is these constant slight attacks, each time affecting the heart slightly more, that in time cause the permanent crippling of this organ, and the chief way to prevent this is to do all that one can to protect the child from whatever is known to produce growing pains or other signs of Rheumatism.

"Many teachers have told me that they are quite willing to keep shoes and stockings at school for children, if the mothers will supply them, so that the children can change in bad weather, and I know that it is done occasionally, but if this is to be carried out to anything like the extent that it ought to be, I think the initiative will need to come from the schools and not from the parents. Felt slippers could probably be easily made by the elder girls at many schools, if a sample was supplied, and then children could either keep dry stockings at school to put on in bad weather while their wet stockings were being dried

or if they did not do so, it would be better for them to wear only the felt slippers while their stockings were drying rather than sit in school wearing wet stockings all day."

Crippling disorders in children are somewhat diminishing: and the orthopædic hospitals provided by the County Councils and the Orthopædic Departments of General Hospitals, are meeting the needs of few counties; but a well-provided Orthopædic scheme is to be advocated. As the bulk of these crippling disorders are the consequence of tuberculosis and Poliomyelitis, the residue being made up from congenital deformities and rickets, it is certain that they may be considerably reduced by the adoption of greater efforts on preventive lines.

Although Special Day Schools and Residential Schools, Industrial and otherwise, are provided for defective children, both before and after school age, "the defectives" are relatively poorly provided for. The insufficiency of accommodation in certified institutions, where suitable training, employment and supervision are maintained, is sometimes felt.

There are still some who hold that the only way of dealing with the mental deficiency problem is by early ascertainment of cases and their subsequent life-long segregation in vast institutions, while others advocate the policy of the sterilisation of the unfit of both seves. Many of the objections to both are the same. An objection to the first which will appeal to all is the enormous amount of expense which would be involved by providing the necessary amount of institutional accommodation throughout the country. The more practical policy of restricting segregation to exceptional cases, coupled with supervision of the defective *in the community* is surely, if slowly, gaining ground in this country. In the United States, matters are far more advanced. There the final object is the gradual restoration to the community of as many trained defectives as possible through a series of small "farm colonies" in country areas and of "hostels" in the cities. Patients who have been trained to become self-supporting, but who cannot yet be fully trusted to regulate their conduct in accordance with social requirements, go to work in the city by day and return to the hostel by night and for meals. After a sufficient probation in this way, they are ultimately restored to the ordinary life of the community, a certain amount of supervision being exercised over them by means of voluntary after-care associations. Nowhere does such an ideal state of things exist in our own country—nor does such a scheme appear to be practicable under existing legislation.

Year by year a certain proportion of children are reported as having dirty heads, running noses, defective sight and so on—and the numbers do not show such a steady improvement as we known to have occurred. But what we call a dirty head or a running nose in 1925 is very different from what we meant by the same term in 1908. Indeed most of the "defects" now recorded would have been ignored in former years, for the pressure of what was gross forced us to overlook the minor degrees of impairment to which we now have time and opportunity to attend.

School Dentistry.

In reference to his valuable work as School Dentist Mr. F. S. Cooper reports that during 1925, his "work increased more in respect to the number of fillings than the number of extractions, and expresses his satisfaction at this state of affairs.

"I find in my work that there is still an increasing number of children who avail themselves of treatment. A little of the prejudice against fillings is vanishing, although it will take a long time to die altogether.

The school dentist reports as follows :—

(1) Number of children who were :

(*a*) Inspected by the Dentist—

Routine Age Groups	Age	5..... 450 6..... 620 7..... 1031 8..... 1793 9..... 841 10..... 1016 11..... 219 12... ... 249 13 ..... 170 14..... 241	Total.....6630
	Specials.....		314
	Grand Total..		6944

(*b*) Found to require treatment 5413
(*c*) Actually treated 3490
(*d*) Re-treated during the year as the result of periodical examination ..... Nil.

(2) Half days devoted to { Inspection..... 98 / Treatment.....332 } Total..... 430

(3) Attendances made by the children for treatment 6041

(4) Fillings ... { Permanent Teeth .. 441 / Temporary Teeth ... 311 } Total ... 752

(5) Extractions { Permanent Teeth ... 472 / Temporary Teeth ... 4465 } Total ...4937

(6) Administrations of general anæsthetics for extractions nil.

(7) Other operations to permanent or temporary teeth ... 117

"Sometimes a child's mouth is in such a state that very extensive treatment is necessary, and then I have arranged for such work to be done at the Children's Home, Luton, and the County Hospital, Bedford, and the parents have always been very grateful for this.

"Of course treatment is not compulsory—in a way it is as well, or comparatively few schools would be visited in the course of a year. I have noticed, however, that it is often the worst cases where permission is refused by the parents, and in some of these even when the child has pain. These are cases where compulsion should be used and when the help of the N.S.P.C.C. should be called in.

"I am not getting round the schools as quickly as I should like as I now get far more work to do from individual schools.

"When I commenced this work only children between the ages of 5 and 8 years were examined, now in small schools I examine all the children, and in larger ones all children up to the age of 11 years, and even then I am requested by numbers over the age of 11 years for treatment, which I think it only right to give when asked for. Of course the ideal system would be to see each child, as soon as it has its teeth, but that is as yet impossible. I am quite certain that preventive treatment then would mean a great reduction of extractions later."

The Administration of the Midwives' Act in 1925

During the year 1925, 91 notifications were received of intention to practise midwifery within the County ; as against 90 in the preceding year, 87 in 1923, 80 in 1922, 71 in 1921, 77 in 1920.

The Still Birth Notifications were as follows :—

Legitimate	41					
Illegitimate	0					
Full Time		...	...	...	...	.. 25
Premature		...	...	...	...	... 16

Enquiries were made into all these Still Births.

All the mothers did domestic work excepting one.

I. Visits paid by the Inspectors of Midwives :

	1921.	1922.	1923.	1924.	1925.
Routine visits of inspection	233	223	195	204	189
Visits paid but midwives not at home	73	72	79	73	72
Special inquiry visits arising from notifications ...	371	416	417	371	407
Other special visits and enquiries	222	281	290	301	303
	899	992	981	949	971

The following special visits have been paid :

1. In illnesses heard of in cases after Midwife had ceased attending, to ascertain if Midwife had been negligent.

2. Enquiries in towns and villages about Uncertified Midwives practising.

3. To Secretaries of County Nursing Associations (local branches) relative to midwifery in villages, principally to suggest additions being made to bags.

4 To the Secretary of the County Nursing Association relative to the work of Nurses and Midwives in the County.

5. To the cases at which Midwives were in attendance, to supervise their work.

6. To women wishing to be trained for Midwifery.

7. To houses where there are new-born babies and where medical help has not been required.

To Secretaries of Insurance Companies regarding "maternity benefit" being paid where a Midwife was in attendance.

II. Notifications received from Midwives:

	1921	1922	1923	1924	1925
Of intention to practise	71	81	87	90	91
Of change of address	7	14	13	9	10
Of change of name	1	—	—	2	1
Of sending for medical help	248	262	246	227	248
Of still-births occurring in their practice	43	35	49	42	41
Of deaths occurring in their practice	6	3	5	16	17
Of laying out the dead.....	—	3	1	1	1
Of liability to be a source of infection	—	1	3	1	1
	376	399	404	388	410

III. Defaults of the Central Midwives Board's Rules:

	1921	1922	1923	1924	1925
Failing to notify the sending for medical help	3	—	—	—	1
Midwife wrongly describing herself in an advertisement.....	—	—	—	—	—
Failure to keep a record of pulse and temperature under the Rules	—	1	1	—	1
Failure to notify death of twins	—	—	—	—	—

IV. Defects discovered by the Inspector of Midwives, when visiting Midwives: State of bag or basket of appliances: Unsatisfactory 0

Puerperal Fever occurring in Midwives practice, 1921, 0; 1922, 0.; 1923, 0; 1924, 0; 1925, 0.

Ophthalmia—Inflammation or discharge from the eyes, however slight. Rule E. 20 (5). During 1925 there were 12 cases reported.

Ophthalmia Neonatorum—No case was reported during 1925.

Each midwife is supplied with a leaflet giving instructions as to the care of Infants' eyes, and prompt enquiries are made into every case occurring in a midwife's practice.

Leaflets upon Venereal Diseases are also supplied.

Number of cases in the County attended by Midwives:

Each midwife who has given notice of her intention to practise has been asked to make a return of the number of cases she has attended during the year (*a*) as a midwife, and (*b*) as a maternity nurse (*i.e.*, acting under a medical practitioner).

Returns were made by 82 midwives, showing that during 1925 1,568 cases were attended by 67 midwives. In addition 361 cases were attended by 63 midwives acting in the capacity of maternity nurses.

	As Midwives (*i.e.*, acting alone)	As Maternity Nurse (*i.e.*, acting under a Doctor.)
Attended no cases	15	... 17
Attended less than 5	18	... 35
Attended between 5 and 10 ...	15	.. 19
Attended between 10 and 25 ...	20	... 10
Attended between 25 and 50 ...	4	... 1
Attended between 50 and 100 ...	6	... —
Attended between 100 and 200 ...	4	... —

Two Bedfordshire candidates were trained in Midwifery during 1925.

On December 31st, 1925, there were in the County 89 midwives. Of these, 30 are nurse-midwives working under Committees affiliated to the Bedfordshire County Nursing Association, and 6 are nurse-midwives employed by independent Local Nursing Associations; 46 are trained midwives in private practice, and the remaining 7 are untrained *bonâ fide* midwives who take very few cases during the year.

Since 1902 the period of training required of midwives has grown from 3 months to 12; and so local expenditure from voluntary or rate-aided sources must now be increased if the supply is be maintained. The provision of maternity beds will afford increased training facilities for pupil-midwives.

The Minister of Health issued a Memorandum in 1925, setting forth the conditions upon which grants from the Exchequer will in future be paid in respect to the training of midwives. The

grants, he states, will be paid to recognised residential institutions as in the past, and will be made only in respect of students who intend to practise as midwives or as health visitors or who are already employed as full-time health visitors. Further, as the Central Midwives Board, with the approval of the Minister, have recently revised their rules relating to the training of midwives and have decided to increase the minimum period of training, the new conditions for the grants will provide for the increase required by the extended period of training, which comes into force on May 1st, 1926. With regard to the supply of midwives, a circular (No. 559), issued by the Ministry to local supervising authorities under the Midwives Acts, states that in rural areas where there are special difficulties in securing and maintaining an adequate supply of trained midwives, the Minister will be prepared to approve of contributions being made by a County Council to the County Nursing Association in respect of the provision of trained midwives for service in the area of the council. These contributions will rank for the Exchequer grant of 50 per cent. under the Maternity and Child Welfare Regulations.

The death of a mother in childbirth is the most distressing of all causes of death. We know that 4 per 1,000 women die in childbirth ; we know to what causes these deaths are attributed upon the death certificates ; but we do not know how these calamities originated, or where or when occurred the hitch which interfered with their prevention or their cure.

The real cause of maternity mortality is that proper advice and attention is not available at the right time. The necessary conveniences are either not there to be obtained at all or are not obtained until danger has actually arisen.

Facilities for difficult delivery, for combating incidenta. disease, for the attention of women before, during, and after confinement must be increased both in extent and in efficiency.

There is a relatively large death and injury rate in respect to first confinements, and so far as possible the less well-to-do women should be confined in a hospital or nursing home.

In my Annual Report for 1920 I wrote :—

" The County is poorly equipped so far as Maternity Hospitals and Homes are concerned. These have proved to be life-saving provisions both for the infant and the mother, and the need for

them has become more urgent by reason of the housing difficulties and the limited accommodation and the lack of privacy often afforded."

Dr. Willmer Phillips (M.O.H. Borough of Bedford) reports :—

"Great progress has been made with the proposal alluded to in last year's Report for the provision of a Maternity Home and Ante-Natal Clinic. Under the energetic guidance of the Chairman, Mr. Arnold Whitchurch, J.P., the scheme has been accepted by the Governors of the County Hospital. The plans have been adopted and the old Nurses' Home will shortly be altered to provide for twelve patients with the necessary theatre, labour room, babies' room, and all other necessary accompaniments. It is proposed also to establish an Ante-Natal Clinic at the Hospital in connection with the Home.

The advantage to the Hospital of such an arrangement will be considerable, as it will enable it to be not only a Nursing Training Centre but also a Certified Institution for the Training of Midwives. It will also enable the Hospital to undertake the valuable work which is fairly within its province but which it has not hitherto been able to carry out. The Hospital is held in such esteem by the general population that the provision of a Maternity Ward will not fail to attract.

Good Maternity Wards are available at both the Bedford and Luton Poor Law Infirmaries, but prejudice prevents them being used except by a very limited section of the community.

With regard to Luton, Dr. Archibald reports :—

"At the moment, steps are being taken to arrange for the provision of beds in the local Institutions for serious and complicated cases of child birth, but no definite agreement has yet been reached. Luton is peculiarly fortunate as regards the records of deaths from complicated labour and Puerperal Fever.

The extremely infectious condition known as Pemphigus Neonatorum—a form of Impetigo in infancy, is beginning to receive attention. Some midwives have "runs" of such cases, owing to their neglect of precautions against carrying infection, notwithstanding the fact that they are required to notify such conditions to the local supervising authority under the Rules of the Central Midwives Board. The few cases which appear to be syphilitic origin show definite divergencies from the others. For instance the rash is on the soles and palms, the infant is born with the condition, and a fatal issue is much more frequent.

I have already referred to the valuable services which the Bedfordshire Midwives are rendering to expectant mothers.

When one considers the large numbers of infant deaths that occur during the first week or ten days of life, or before the midwife ceases to attend, it emphasises the need of close co-operation between the officials of the welfare centres and the midwives in their preventive work, both ante-natal and post-natal, if the high mortality at this age is to be reduced.

The County Midwives' Association (of which I am the President and Dr. Welch a Vice-President) held several very successful meetings in 1925. At these meetings useful addresses were delivered by experienced workers, and to these the Association is much indebted. The County Council makes a grant of 2 guineas per annum to the Association, which now has a membership of 70.

ADOPTIVE ACTS, BYE-LAWS AND REGULATIONS.

The Infectious Diseases (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, both optional, have been generally adopted by the Local Authorities throughout the county.

The following Bye-Laws or Regulations are also generally in force, Slaughter-houses, Offensive Trades, Common Lodging-houses, Removal of House Refuse, Cleansing of Privies, etc., Prevention of Nuisances, Keeping of Animals, New Streets and Buildings (Structure and Drainage), Cleansing of Footways, Dairies, Cowsheds and Milk-shops.

There are no Bye-Laws relating to Houses-let-in-lodgings in several Districts. Dr. Archibald proposes to ask the Borough Council of Luton to adopt such Bye-Laws.

MATTERS OF GENERAL SANITATION.

Water Supplies.

Dr. Willmer Phillips (Bedford Urban District) reports that:—

"The important work of connecting up by a heading "No. 1 New Well" to "No. 2 New Well" which is situated beneath the new pumping Station at the Waterworks, was completed in 1925.

"In December, 1921, the late Mr. Kenneth P. Hawksley, the well-known Water Engineer, was appointed "to report on the present sources of water supply of the Borough and to submit a scheme providing for a supply sufficient for the requirements of a population not exceeding 75,000 with a consumption per head per 24 hours of 35 gallons.

"Since the death of Mr. Hawksley, the Council has been advised by G. Midgley Taylor, Esq., M.I.C.E. Throughout the whole time the Authority has been in communication with the Ministry of Health, but at the present time it is impossible to make any statement on the subject in this Report."

Dr. W. K. Parbury (Bedford Rural District) reports that :—

Most villages obtain their supply from one of the following sources—

1. Deep wells.
2. Shallow wells.
3. Rain water.
4. Ponds and water holes.

"The village of Oakley is at present supplied by a fair number of shallow wells which are unprotected and liable to surface pollution. The water is very hard and, as I have pointed out from time to time, there would be a saving in the use of soap and soda in softening water for washing purposes if a public service was instituted. I hope the Council will consider this question again, and take into consideration the needs of the parish as a whole.

"The village of Souldrop is very badly supplied with water. The inhabitants obtain their water from surface ponds, which get very low during the summer months. The water goes through a roughly constructed strainer, and cannot be a suitable water for drinking purposes. During the dry months of the year some of the inhabitants cart their drinking water from Sharnbrook. The question of supplying water to this village was considered by your Council before the War, and it was proposed to get a good and wholesome supply from Rushden. The principal landowner in the village would have materially assisted such a scheme, but the opportunity was not taken advantage of. I think this question should be taken up again, as I consider it is urgent and necessary for the health of the village.

"In my previous reports attention is drawn to other villages which should have consideration when a favourable opportunity presents itself."

The Medical Officer of Health (Dr. H. W. Grattan) of the Biggleswade Rural District reports as follows :—

"As the result of a request from a large land owner the question of providing a suitable water supply for the Parish of Everton was considered by the Council in 1925, who proposed extending the water main from Sandy to Everton. A public enquiry was held for the purpose of raising the necessary loan. At the enquiry I submitted a report on the existing water supply which is obtained from about 16 shallow wells.

"Samples of water from three of these wells were examined and found to be polluted.

"The work of extending the public water supply to Everton is now far advanced. A three inch main has been laid from Sandy to Everton. A water tank (for three days supply) is being erected in the Stack Yard of Warden Hill Farm, Everton, and a small pumping station, comprising two 8 h.p. Petter engines, is in course of construction at the bottom of the Everton Road near Sandy railway station."

Dr. E. J. Cross (Eaton Socon Rural District) reports that the water supply at Dean is insufficient in quantity and defective in quality ; and that this matter is receiving attention.

The Pollution of Streams.

During the year this subject has received consideration ; but the times are not favourable to effective action calling for a general survey involving a considerable monetary outlay.

The following are references made to the subject by Medical Officers of Health of Sanitary areas within the County :—

Dr. Kilham Roberts (Ampthill Rural District) :

"There is a certain number of our streams polluted, but not to a marked extent ; at any rate, not sufficient to kill fish life. The main source of pollution is the effluent from our ditches."

Dr. Archibald (Borough of Luton) :

"Luton being situated near the source of the river Lea, the river is only a tiny stream as it passes through the town. Many large work premises are situated on its banks, and complaints of offensive emanations are not uncommon. These happenings have at once been investigated and the trouble quickly abated. No really serious pollution has been discovered. The Lea, after passing through the town, receives the effluent from the Corporation Sewage Works, and as the river afterwards

helps to supply the City of London with drinking water every precaution is taken to ensure as pure an effluent as possible. Samples are taken regularly, and are on the whole very satisfactory. The town has one representative on the Lea Conservancy Board."

Dr. Parbury (Bedford Rural District):

"Many villages still discharge crude sewage into the nearest river or stream, in most cases it is only slop water that is being thus disposed of. In those villages where there is gross pollution, I have from time to time pointed out the condition to your Council.

The Public Health Act, 1925, which is an adoptive Act, by Section 54, constitutes as a nuisance, within the meaning of Section 91 of the 1875 Act, any part of a watercourse which is so choked or silted up as to obstruct or impede the proper flow of water, and thereby to cause, or render probable, an overflow on to adjacent land and property, or to hinder the usual effectual drainage of water."

Scavenging.

The wider adoption of scavenging schemes is desirable in the rural districts. Useful progress has been made in this direction during recent years.

The following are references made to the subject by Medical Officers of Health of Sanitary areas within the County:

Dr. W. Archibald (Luton Borough)

"All house refuse is collected weekly by horse drawn vehicles, but with the expansion of the town the provision of motor vehicles for the out-lying parts is being considered. All refuse is removed to the Council's Refuse Destructor within the Borough, or to a Tip situate in the Rural Area approximately two miles from the centre of the town. Expansion of the Refuse Destructor Works is taking place with the view to incinerating all refuse collected within the Borough. The loads of refuse are not regularly weighed.

"The substitution of Galvanised Iron Dust Bins for ashpits is being carried out under a local Act, the change taking place only where ashpits are found defective. The number of conversions effected during the year being 64.

Dr. J. Rollings (Luton Rural District):

"Scavenging is carried out by contract at Stopsley Sundon, Houghton Regis, Leagrave and Limbury Parishes. The latter Parishes are now scavenged under separate contracts, and

vacuum exhaust pumps with the necessary equipment, carts and engine are provided for each Parish."

Dr. W. K. Parbury (Bedford Rural District):

"There is only one village (Wymington) in your area who have a scavenging system. In all the other villages, the inhabitants make their own arrangements for the emptying of earth closets, privies, ash pits and cesspools. Any nuisance arising from failure to empty the above, is promply dealt with by your inspector.

In the Borough of Bedford the house refuse is collected twice weekly from nearly the whole of the town; and in the Ampthill Urban District the refuse is collected from every house twice weekly."

Dr. Kilham Roberts (Ampthill Rural District):

"The following villages are carrying out a system of scavenging, viz., Aspley Guise, Aspley Heath, Flitwick, Toddington, Westoning and Woburn. Details of this are given in the Sanitary Inspector's Report. A system of scavenging is necessary for Clophill.

Privy middens are being substituted for pails gradually throughout the county.

There are many pail-closets in use throughout the county but it is comparatively seldom that one finds earth employed in them. An earth-closet is certainly the most sanitary arrangement next to a water-closet; and so where suitable earth is available, a pail-closet should be used as an earth-closet by the simple device of keeping a box of dry earth near the seat and sprinkling a scoopful of this into the pail whenever the closet is used. This effectually keeps down effluvia and flies and provides a compost of considerable value in gardens. This compost should be *lightly* buried when the pail fills—lightly because it is only in the surface soil that the microbes which break up refuse-matter and render it inodourous and harmless exist in large numbers.

Such disposal should be kept as far away as possible from any shallow well.

The dry household refuse should be burnt whenever possible; and where there is a fair sized garden the remainder may be dealt with on or in the soil; but where the garden is small it is always wise to get permission, if possible, for the disposal of this material (together with some at least of the slop-waters) on neighbouring ground more distant from the dwelling.

The dumping of household refuse often leads to a nuisance varying in degree, to those who occupy houses or use the roads in the neighbourhood, and when this refuse is imported from another district, the Local Sanitary Authority ought still to be held as culpable as when they themselves establish a dump which occasions a nuisance. I am of opinion that a Local Sanitary Authority should make bye-laws requiring their sanction to the establishment of any dump within their district, and also for the prevention of the nuisances so often associated with these deposits.

There can be no doubt that the objectionable features of dumping can be mitigated by requiring the practice of the suggestions which have been made by the Ministry of Health. These are as follows :—The deposit to be made in layers ; no layer to exceed 6 feet in depth ; each layer to be covered on all surfaces exposed to the air with at least 9 inches of earth or other suitable substance, except a portion which may be allowed uncovered during the formation of a layer ; no layer to be left uncovered for more than 72 hours from the time of deposit ; and sufficient screens or other suitable apparatus to be provided, where necessary, to prevent any paper or other debris from being blown by the wind away from the place of deposit.

Sewerage and Drainage.

The following are references made to the subject by Medical Officers of Health of Sanitary Areas within the County.

Dr. H. W. Grattan (Biggleswade Rural District.)

"During the year 126 houses or premises were connected up to the new sewers and at the close of the year the drainage of 8 other houses was in hand.

"There are now some 635 houses connected up to the new sewerage system out of a total of 661 within the drainage area, the exceptions being chiefly isolated houses which are too far from the sewers.

"There is an urgent need of a modern drainage system for the parish of Arlesey. This question was considered by the Council in 1923, but was not proceeded with owing to financial reasons

"The present system of collection and disposal of night soil is very unsatisfactory.

"There is no doubt that the majority of the parishioners are in favour of a modern system of drainage."

In his Report to the Biggleswade Urban District, Dr. Grattan reports—

"The provision of new air compressing machinery at the Sewage Disposal Works, to replace the existing plant, and to provide for future developments of the district is receiving the attention of the Council."

Dr. J. Rollings (Luton Rural District.)

"The Council contemplate carrying out a scheme of sewerage for the rapidly developing Parishes of Leagrave and Limbury. Instructions have been given to the Engineers to prepare a suitable scheme and the proposal is to convey the sewerage from the parishes by gravitation into the Borough of Luton Sewers.

No two opinions can exist as to the real need for sewerage at both these places and also in the developing area on the borders of Luton. These areas are already quite Urban in character as to the houses, gardens and streets, and the cesspool system ought not to be continued in them. It is equally certain that the sewerage necessary will entail a considerable outlay quite apart from that involved in its disposal.

Dr. Butters (Kempston Urban District.)

"With few exceptions the houses are connected with the sewers. The filter beds at the outfall works have recently been renewed and the old sprinklers have been replaced by the revolving circular type of sprinkler. The effluent is quite satisfactory."

Dr. J. Grogono (Leighton Urban District.)

"The Sewerage System of the district gravitates to the works off King Street, and at four parts of the town the sewage is forced up by compressed air to higher points, from which it is able to gravitate.

Various schemes are under consideration for the improvement of the Sewage Disposal Works, but so far, no final decision has been made."

Dr. Kilham Roberts (Ampthill Rural District.)

"In my opinion the time has come for the adoption of a system of Sewerage and Water Supply at Flitwick. At present, a large proportion of the wells are polluted, mainly

owing to the soil being highly manured around this village, and the large number of cesspools in use. The sewer at Clophil needs extension."

Sewage Purification and Disposal.

Dr. W. J. Taylor (Ampthill Urban District) reports :—

"During the year the Council have constructed new sedimentation tanks, with percolating filters and automatic distributors and Humus tanks on the Sewage Farm, in substitution of the old tanks and surface irrigation, and the scheme appears to be working well. Beds have been formed for surface water, and the old tanks are being used as storm tanks. The effluent from the farm is satisfactory, and no complaints of pollution of streams have been made during the year.

Dairies, Cow-sheds, and Milk-shops.

One of the most important functions that Sanitary Officers can perform is to do what is possible to stimulate certain local producers and retailers to a higher standard of cleanliness in the collection and distribution of milk. Suitable cow-sheds are very important ; but suitable practices within the cow-sheds are more important.

It is most desirable, on public health grounds, that more milk should be consumed ; but the milk must be clean. Much progress is being made up and down the country in this respect, and it is hoped that Bedfordshire will keep abreast of this progress.

Many of the Counties have taken useful measures in the direction of stimulating the more cleanly collection, storage and distribution of milk. Clean Milk Competitions have been held and arrangements made for the testing, in County Laboratories or otherwise, of many milk samples with the object not only of detecting the germ of tuberculosis but also of directing the attention of producers and purveyors, where necessary, to the need for the adoption of greater precautions against dirt contamination. It is not surprising that there is testimony to the fact that milk producers are growing to take a greater interest in clean milk production ; but the measures adopted in rural districts are very unequal. The production of graded milk has made but little headway ; yet the supply of Grade "A" milk is not difficult to provide, given simple precautions and trustworthy employees.

The licenses issued for the sale of milk under special designations have been very few, so far, in Bedfordshire. In Bedford there is one licensee for the sale of Grade A milk, but no application has been received for the sale of milk as "pasteurised."

There is much tuberculosis amongst the dairy herds in these Islands. This entails considerable loss to the farmers. It is also a serious danger to children owing to infection of the milk. The new Tuberculosis Order 1925, calls for the slaughter or cows yielding such infected milk. During 1925 it is recorded that seven cows from milking herds were dealt with under the Order.

The postponed Milk and Dairies (Consolidation) Act, 1915, came into operation in 1925, and the first schedule of this Act, provides that legal machinery for stopping the supply of milk that may cause tuberculosis.

The sale for human consumption of tuberculous milk or milk from a cow suffering from certain specified diseases, or the products of such milk, is definitely prohibited. In this connection it should be noted that the Minister of Agriculture and Fisheries has made an Order (The Tuberculosis Order 1925) provided for the slaughter of bovine animals affected with certain specified forms of tuberculosis, and for the payment of compensation for animals so slaughtered. This order came into operation on the same day as the above-mentioned Act, and it will be the duty of the local authority to discover the presence of such animals in herds to which this order applies, and deal with them accordingly, or report the matter to the proper authority under the Diseases of Animals Acts.

Section 3 as amplified by Schedule I. enacts that if a County Medical Officer thinks tuberculosis is caused or likely to be caused by milk supplied from any cows in the County he must report this fact to the Council (or any Committee to which the Council have delegated their powers, see s. 15 (2)), and he is to put in any veterinary or bacteriological reports furnished to him.

The County Council may then make an order prohibiting the supply of milk either absolutely or under conditions and must state the ground on which they make such order.

The 1915 Milk and Dairies Act (like the Housing and Town Planning Act, 1919, and the Milk and Dairies Amendment Act, 1922) provides that the Ministry of Health may transfer all powers from a defaulting local authority to the County Council.

Slaughter-houses.

From the standpoint of the inspection of Meat and the conditions of slaughtering, private slaughter-houses are generally regarded as quite unsatisfactory ; more especially is this so in

Rural districts. A Public Abattoir is advocated by the Medical Officer of Health of the Borough of Bedford. The private slaughter-house premises in the county were duly inspected in 1925 and are reported to be satisfactory in most cases.

Food Inspection.

Each year more systematic efforts appear to be made to detect the exposure or storage after sale for human consumption of unsound food, and a considerable amount of such food was voluntarily surrendered or seized in 1925. Premises where food is prepared and stored are also kept under better supervision.

In some Districts exceptionally good work is being performed. This is the case in the Bedford, Luton and Dunstable Urban Districts and in the Ampthill and Biggleswade Urban and Rural Districts.

Hitherto only a few of the animals slaughtered in most Districts have been inspected at the time of slaughter. Under the new Meat Regulations, 1924, which came into operation in 1925, it should be possible to inspect quite a large proportion of the animals slaughtered for food.

These are designed to secure more adequate inspection of animals slaughtered in this country and improvements in the handling, transport and distribution of meat. The more noteworthy provisions of the Regulations are the requirement of Notices of Slaughtering and of evidence of disease to be given to the appropriate officer of the Local Authority. When an animal is slaughtered for sale for human consumption notice must be given to the Local Authority and the carcase must be retained for a few hours to give the inspector an opportunity of inspecting it. This is a very important provision for preventing traffic in diseased meat, inasmuch as inspection can only be satisfactorily carried out at the time of slaughter, when all the organs are available for examination. The Minister of Health is empowered to authorise the Local Authority to adopt a distinctive mark for placing on sound carcases which have been duly inspected.

The butchers with slaughter-houses are generally required to give notice of slaughtering to the local authority not later than 10 a.m. on the day of slaughter. As the result of such notices it should be possible to make a number of inspections prior to and shortly after slaughter ; but in Rural Districts generally

the shortage of staff and the distances separating the slaughter-houses are against a good record of such inspections. Congratulations are therefore due to the Rural District Council and officials of Biggleswade upon the following excellent record :

" The butchers have been provided with supplies of postcards for them to use in giving notice of the day and time when slaughtering takes place.

" There are in the Rural District some 31 Registered or Licenced Slaughter-houses which are scattered throughout the whole district, and since the order came into force 1267 visits have been made to slaughter-houses or foodshops, a large number of visits being made in the evenings during the summer months.

" It is, of course, impossible for an inspection to be made of all animals slaughtered in such a wide area, but during the nine months of the year, the order was in operation the following carcases have been inspected, viz :—

" Oxen, 486. Sheep, 448. Pigs, 1,796. Calves, 62. Goats, 4

The value of the Regulations will largely depend upon the knowledge of the Sanitary Inspectors, only a few of whom have received any special training in the difficult subject of Meat Inspection, and facilities should be offered for obtaining this knowledge. Qualified Veterinary Inspectors have been appointed as Meat Inspectors at Leighton and in the Eaton Socon Rural District.

The Regulations also contain provisions for the protection of meat against contamination by dirt, either in the handling, storing, transport, or sale of the meat. The exposure or offering of meat for sale from any stall is only permitted on conditions that the stall is suitably covered over and screened at the sides and back, that everything reasonable is done to guard against the contamination by flies, that no meat may be placed within 18 inches of the ground, that cleanliness is maintained with reference to counters, slabs, knives, trimmings, and refuse material. Even more stringent conditions are imposed with reference to the exposure for sale or the preparation for sale of meat in shops and rooms in occupation.

To admit of the necessary arrangements being made by Local Authorities and the trade, it was provided that the Regulations did not come into operation until April 1st, 1925.

There is uncertainty as to the nature of the precautions which can be demanded in order to protect the meat against road dust and flies ; but certainly no meat should be exposed for sale in front of the line in any shop window or door or on any stall, bench or projection unless it is suitably protected. During the fly season of the year meat should be protected from contamination by clean white gauze muslin or other material, glass screens, fans, or other efficient means. The best remedy of all is the provision of glass fronts to all the butchers shops and the requirement that all meat shall be kept behind those glass fronts.

Doubtless, the proper enforcement of these Regulations will go a long way towards securing a much overdue improvement in the general conditions under which meat is dealt with before it reaches the public ; and there is ample scope for similar Regulations dealing with the exposure for sale of other articles of food.

It is certainly desirable that more frequent inspection of meat and other food should be carried out ; but the existing staffs are often so fully occupied that it will be impossible to material increase this branch of inspectorial work.

The registration of all places in which meat or other food is being prepared in any way for human consumption is also most desirable

Housing.

This matter is one of vital importance to the physical and moral health of the people ; and the excessive occupation of many houses is a serious detriment to the public health. More than one District Medical Officer of Health expresses his regret that the new houses being erected at the present time are not dwellings for the working classes obtainable at a rent which they can afford to pay. Moreover, District Medical Officers of Health draw attention to the fact that with the present shortage it is impossible to deal with slum dwellings and slum areas. It is certain that abolition can only proceed side by side with the supply of houses. So long as there is an insufficiency of houses, slums not only remain but are created, and so make an endless contribution to the ranks of the vicious and diseased.

From the facts furnished to me by the District Medical Officers of Health of the County, I found that during 1921, 837 new houses were completed by the Local Sanitary

Authorities and 63 by private enterprise. During 1922, 484 new houses were completed by Local Authorities, and 146 by private enterprise. During 1923 the total of new houses erected numbered 317; and it was found possible to demolish 21 old and insanitary dwellings. During 1924, 591 new houses were erected, and 10 old and insanitary dwellings were closed. During 1925, 892 new houses were built—585 in the Urban Districts and 307 in the Rural Districts. 22 closing orders were issued and 17 demolition orders.

While, generally speaking, the dwellings provided in 1925 were more than in 1924 (the balance being due to private enterprise rather than to the provision of houses by the Sanitary Authority) our building operations are barely sufficient to keep pace with the normal growth of population and are inadequate to catch up the deficiencies of past years. Meanwhile Local Authorities, as a rule, are powerless to deal with overcrowding and the continued occupation of unfit houses, owing to the lack of accommodation for those who would be dispossessed.

Every District Medical Officer of Health reports the existence of more or less overcrowding, which is mainly due to the shortage of houses. In several cases the District Councils have decided to erect more houses.

The following are references made to the subject by Medical Officers of Health of Sanitary areas within the County.

Dr. W. H. Gratton (Biggleswade Urban District):

"During the period under revision (1921-1925 inclusive) 93 houses have been erected, and the Government subsidy was granted in respect of 81 of these.

"Notwithstanding this progress there is still an urgent need for more houses for the working classes. I am delighted to say that the problem of providing more houses has now been tackled in a most enterprising and energetic manner.

"On 15th September, 1925, plans for 41 houses were approved and all of these are in course of erection on the Town Field site. In addition plans for 90 more houses on the same site have been approved.

"When these houses are complete it will then be possible to deal with some of the existing houses which are unfit for habitation."

Dr. Willmer Phillips (Borough of Bedford):

"Eighty-seven houses were originally scheduled for demolition or reconstruction and will be dealt with as soon as other suitable accommodation is obtainable for the inmates; in the meantime cleansing and minor repairs have been insisted upon at most of these houses and carried out.

"One hundred and nine cases of overcrowding were investigated, but only in 38 instances was it found to be excessive and steps taken to get the nuisance abated, with the result no doubt that the dispossessed persons crowded into other houses. In investigating overcrowded houses it is difficult to get truthful replies to questions as to the number of persons living in the house, as the tenant is quite aware of what it means to him or her if such is the case, as there is the trouble of abating the nuisance, as well as the loss of income derived from subletting, this in some cases being more than the rent of the whole house.

"As a result of the Housing Act, 1924, the Committee on October 2nd, submitted a further report and a draft programme for the two years ending December 31st, 1926. In this it was estimated that 240 working-class houses would be required to be ultimately built, the estimate being made up as follows:—

Number of houses required to abate existing overcrowding	130
Number of houses required to replace unfit houses and houses below a reasonable standard of fitness	70
Number of houses required to meet the natural growth of population during the period in question	40
	240

"Of these it was suggested that 140 might be erected by the Council, subject to the 'special conditions' as to letting, and 100 by private enterprise, not subject to the 'special conditions.'"

Dr. W. Archibald (Borough of Luton):

"In common with the country generally, there is a shortage of housing accommodation for the working classes; but this shortage, so far as can be ascertained, is not acute. The number of applicants for Council houses is not excessive, and the number of houses erected by private builders, has gone a long way to remedy the shortage.

"No change of any note has taken place in the population during the period under review but a considerable influx is expected in the near future, when a large factory is to be opened at Leagrave by Messrs. Electrolux, Ltd. This firm is expected to employ about 1,500 persons

"(i) So far as can be ascertained, there does not appear to be any serious overcrowding in the town.

"(ii) The cause, where overcrowding does exist, appears to arise from the shortage of low-rented small houses.

"(iii.) To overcome this shortage, the Council have embarked on a scheme for providing 166 houses, 116 of which are already occupied."

Dr. W. K. Parbury (Bedford Rural Council):

"In those parishes that lie further away from Bedford and are situated in the agricultural districts, very little building has been undertaken by private enterprise. The result is that in those latter parishes the type of house for the agricultural labourer is poor, and is not conducive to the uprearing of a population under healthy modern requirements.

"I consider there is no doubt that there is a shortage of dwelling houses for the working classes in most of the villages in your district. It is not easy to estimate this shortness, as so many of our people leave their villages in which they are born because, firstly, there is not sufficient work for them; and, secondly, many of them wish to get married and are unable to find houses. I am constantly coming across cases of young people who have got married and live with their parents until a house is found. I think this latter remark applies to the majority of parishes. I have pointed out to your Council from time to time the advisability of erecting houses for the working classes, and I am glad to report that your Council is now building some houses at Roxton, and is contemplating the erection of suitable dwellings in at least two other villages. I have no doubt these will be occupied immediately they are finished."

Dr. H. W. Grattan (Biggleswade Rural District):

"The grant of a subsidy by the Government has been of considerable advantage. During the period under revision (1921-1925 inclusive) 72 houses have been erected, and the Government subsidy was granted in respect of 51 of these. Notwithstanding this progress there is still a shortage of suitable

houses for the working classes. While the subsidy encourages the erection of bungalows and cottage property by speculative builders for sale, it does not appear to assist in the provision of suitable cottages to be let to the working classes at a moderate rent. There are a number of houses which are unfit for human habitation in the district, but it has been impossible to take the necessary action in respect of them as there is no other accommodation available."

The M.O.H. of the Luton Rural District (Dr. John Rollings) states that, of houses to be erected by the Council, most of them are to replace houses found to be unfit for habitation.

The Sanitary Inspector for the Biggleswade Rural District reports as follows :—

"In five instances during the year persons were found to be living in barns or outbuildings, but on taking the matter up with the owners of the premises concerned, other and more suitable accommodation was found."

Factories and Workshops.

The workshops and workplaces within the county appear to be adequately inspected, and reasonably well maintained.

Schools.

It appears that the sanitary condition of the schools has received due attention. This supervision supplements in a valuable way the inspections made by the County School Medical Officer.

Sanitary Inspections.

In all the circumstances a fair amount of sanitary inspection is undertaken in the different sanitary areas of the county.

In some of the sanitary areas there appears to be far too little house-to-house inspection carried out. This is a valuable measure of prevention of ill-effects from unsanitary conditions, and it should always supplement considerably the unsanitary conditions coming to the notice of the Sanitary Authority after notification of infectious disease, or after complaints are received.

Eight of the County Councils of England have found it necessary to appoint County Sanitary Inspectors to collect detailed information for the County Medical Officer of Health —and through him to the County Council—with respect to the pollution of rivers, the prevention of floods, the methods of sewage disposal, housing, the public milk supply, the state of sanitation in areas which are not thought to be efficiently administered, housing and other matters in reference to which the County Council has duties and responsibilities. It is impossible for the Medical Officer of Health of a large County, or for a part-time Medical Officer of Health of a smaller one, to satisfactorily undertake these important duties without such assistance. Such an officer could be employed usefully in Bedfordshire.

Among the counties which have appointed one or more sanitary inspectors are the following :—Lancaster, West Riding of Yorkshire, Stafford, Durham, Northumberland, Kent, Essex and Surrey.

The Rats and Mice (Destruction) Act, 1919.

Mr. E. W. Russell, the County Agricultural Officer, reports : "In accordance with the recommendations received from the Ministry of Agriculture with reference to National Rat Week, letters were written to the Clerks of all Parish Councils and other Local Authorities in the County advising extermination of rats and mice on the lines suggested by the Ministry. Editors of all local newspapers were asked to insert a notice in their papers, and proprietors of cinematograph theatres to display a notice on their screens.

"Communications were received from various Parish Councils and Local Authorities, calling attention to certain infested premises. These, however, were not quite so numerous as a year ago. The premises were inspected and advice given to the occupiers concerned with a view to the vermin being exterminated, pointing out to them the necessity for immediate action.

"The action taken by occupiers in the County has been most satisfactory, and it has not been found necessary to ask the Clerk of the Council to warn any occupiers to destroy the vermin on their premises, failing which proceedings would be taken against them under the above Act.

Foods and Drugs.

The following table is a summary of the number, nature, and results of analysis, of the samples submitted to the County Analyst during 1925.

Article Submitted for Analysis. (437)	No. of Genuine Samples.(408)	No. of Adulterated Samples. (29)	Remarks as to Adulteration.
Almonds (Ground) ...	5		
Ammoniated Tincture of Quinine	1		
Apricots (Dried) ...	2		
Arrowroot	2		
Bacon	1		
		1	Boric Acid 23·8 grains per lb.
		1	,, 19·95 ,,
Baking Powder ...	4		
Balsam of Aniseed ...	1		
Blanc Mange Powder	1		
Brawn		1	,, 14·77 ,,
Bun Flour	2		
Butter	33		
Cake	3		
		1	,, 13·02 ,,
Cake (Genoa)... ...		1	,, 8·68 ,,
Cake (Sponge) ...	2		
Camphorated Oil ...	1		
Caraways (Ground) ...	1		
Castor Oil	1		
Cheese...	3		
Cherries (Glace) ...	1		
Chicken and Ham Roll	2		
		1	,, 12·18 ,,
Chocolate Powder ...	1		
Chutney	1		
Citrate of Magnesia ...	1		
Cocoa	9		
Coffee	6		
Corned Beef	2		
Cornflour	2		
Cream	5		
Cream (Canned) ...	2		
Currants	3		
Custard Powder ..	3		
Eucalyptus Oil ...	1		
Fish Paste	3		
Flour	5		
Flour (Wholemeal) ...	1		
Gin	3		
		1	40·76 degrees under proof. Fined £2.
Ginger (Ground) ..	3		
Ginger Bread	1		
Glycerine	4		
Gravy Salt	2		

TABLE OF SUMMARY.—*continued.*

Article Submitted for Analysis. (407)	No. of Genuine Samples. (408)	No. of Adulterated Samples. (27)	Remarks as to Adulteration.
Honey	1		
Horseradish Cream ...	1		
,, Sauce ...	1		
Jam	6		
Jelly Crystals	5		
Lard	30		
Lemonade Crystals ...	1		
Lemon Cheese ...	1		
Lemon Squash ...	2		
Margarine	15		
Marmalade	4		
Meat Paste	2		
Milk	140		
		1	Added water 11·2%
		1	,, ,, 7·7%
		1	,, ,, 24·2% and Fat abstracted 11%. Fined £10 and costs £6 3s. 8d.
		1	Deficient in fat 13·0%
		1	,, ,, 4·0%
		1	,, ,, 8·0%
		1	,, ,, 6·0%
		1	,, ,, 4·0%
		1	,, ,, 2·0%
		1	,, ,, 29·0% Fined £10
		1	Deficient in fat 4·0%
		1	,, ,, 21·6% Vendor cautioned.
		1	Deficient in fat 9% (Informal Sample).
Milk (Skimmed) ...	2		
Mustard (Compound)	5		
Olive Oil	3		
Pea Flour	1		
Pears (Dried) ...	1		
Pepper	4		
Pineapple (Canned) ...	1		
Pork Pie	1		
Prunes	2		
Pudding Powder ..	1		
Raisins	1		
Rice	4		
Rice (Flaked) ...	1		
Rice (Ground) ...	3		
Rum	3		
		1	38·93 degrees under proof. Vendor fined £1 and £1 14s. costs.
Salmon and Shr Paste	1		
Sausages	3		
		1	Boric Acid 23·8 grs. per lb.
		1	,, 16 45 ,,
		1	,, 24·29 ,, Vendor cautioned
		1	,, 20.68

TABLE OF SUMMARY.—*continued.*

Article Submitted for Analysis. (**407**)	No. of Genuine Samples. (**408**)	No. of Adulterated Samples (**29**)	Remarks as to Adulteration.
Sausages (Luncheon ..		1	,, 11·62 ,,
Saveloy		1	,, 11·27 ,,
Senna Pods	1		
Soup Powder	2		
Spice Mixed	1		
Sponge (Jam)	2		
Sponge Roll	1		
Suet (Shredded) ...	1		
Sugar	3		
Sultanas	2		
Sweet Spirit of Nitre...	3		
		1	Deficient in Ethyl Nitrite 32·2 per cent.
Swiss Roll	2		
Syrup of Rhubarb ...	2		
Syrup (Strawberry) ...	1		
Tapioca	1		
Tartaric Acid	1		
Tea	2		
Tomato Ketchup ...	1		
Vinegar (Malt) ...	5		
Whisky	5		
Wine (Ginger) ...	1		
,, (Raisin)	1		
,, (Sherry Flavour)		1	Salicylic acid 1.53 grs. per pint.

The following Report has been furnished by Mr. Kear Colwell F.I.C., the Public Analyst for the County :—

"During the year 1925, 437 samples were submitted to me for analysis in accordance with the provisions of the Sale of Food and Drugs Acts—considerably fewer than in the previous year when the total was 563, 391 having been purchased with the usual formalities and 46 obtained informally.

"Of these samples 29 (6·64 per cent.) were found to be adulterated and were certified accordingly. The percentage of adulteration is rather more than last year, when 5·85 per cent. of the articles examined were so certified. Twenty-six of these adulterated samples had been obtained formally and three informally.

"The articles adulterated were bacon, brawn, cake, chicken and ham roll, gin, milk, rum, sausages, saveloy, sweet spirit of nitre and wine (British).

"One hundred and fifty-three samples of milk were analysed, and 13 of these (8·5 per cent.) were found to be adulterated as their content of fat or non-fatty solids or in one case both, fell below the Board of Agriculture limits for these constituents in genuine milk of the poorest quality. In two cases water had been added to the extent of at least 7·7 and 11·2 per cent. respectively, and from ten samples fat had been abstracted, the quantity removed varying from at least 2 per cent. to 29 per cent., and in one case not only had at least 24·2 per cent. of water been added, but also at least 11 per cent. of fat had been abstracted. Neither preservatives nor foreign colouring matter were found in any sample of milk.

"Two of the three samples of bacon were found to contain 19·95 and 23·8 grains of boric acid per pound respectively, a very considerable undeclared addition to the already overborated menu of the breakfast table.

"The only sample of brawn submitted was preserved with boric acid—14·77 grains per pound.

"Two of the five samples of cake contained 8·68 and 13·02 grains per pound of boric acid respectively, doubtless derived from the use of liquid egg in the making.

"One sample of chicken and ham roll was preserved with boric acid, the quantity found being 12·18 grains per pound.

"Eight samples of sausages were submitted and no less than five were found to contain boron preservative, the amonnts varying from 11·62 to 24·29 grains per pound.

"The sample of saveloy obtained informally contained 11·27 grains of boric acid per pound.

"Both the samples of gin and rum certified to be adulterated had been unduly diluted with water so as to reduce the spirit strength to 40·76 and 38·93 degrees under proof respectively.

"The sample (informal) of sweet spirit of nitre was deficient in the active ingredient, Ethyl nitrite, to the extent of at least 32·2 per cent.

"A sample of British wine (sherry flavour) contained 1·58 grains of salicylic acid per pint.

"The remaining samples call for no special comment.

"Having regard to the somewhat extensive use of preservatives in articles of food sold in the County, it is satisfactory to note that at last Regulations have been framed to control their addition, as well as that of colouring matter, to foodstuffs, und although they do not come into operation until after the 1st January, 1927, it is to be hoped that a gradual improvement may be noted before that date.

As Mr. Colwell shows in his statement, the employment of chemical agents for preserving food is extensively practised. The increasing use of these substances and the difficulty of keeping a rigid control over this practise in the interest of public health has led to the issuing of the Regulations by the Ministry of Health.

As regards the harmfulness of boric acid and its salts, there is a preponderating body of evidence that when they are present in considerable quantity harm may result from their consumption, and the Departmental Committee on the Use of Preservatives, after carefully considering the evidence, came to this opinion on the subject. It is really beside the point to assert that the small quantities necessary for preservation have not been shown to be harmful, since experience has shown that these limits are not maintained, and when the salts are widely used they may be consumed almost daily in a number of articles, thus giving a considerable dose of a substance which is comparatively slowly excreted. The real point at issue, however, is that the use of preservatives is a substitute for cleanliness, and that their addition allows food to be collected, prepared, or stored under conditions which are prejudicial to health. The methods used are only practicable because the added preservative prevents the food decomposing, as it otherwise would under these unhygienic conditions Scientific investigators are unanimous that cold storage is a preservative greatly superior to added chemicals and that it can with advantage to public health replace them. There is no trustworthy evidence that such a change will cause a general increase in cost, although certain types of food may be affected.

The suggestion that the suppression of preservatives will cause an increase of food poisoning is hard to understand, for there does not appear to be a single argument to support it. Presumably the idea is that without preservatives more food will be eaten in a tainted condition, since there will be so mnch more food of this character thrown upon the market. The use of cleanliness and cold storage instead of chemical additions will probably diminish the quantity of food showing early decomposition changes, since the general effect will be a much higher standard of purity. This view shows a singular lack of appreciation of the cause of food poisoning, which has nothing

to do with tainted food. The prevailing factor in the causation of these outbreaks is a defective standard of cleanliness and care of the food which has allowed specific bacilli to gain access to it and contaminate it. A heightened standard of cleanliness is one of our most important preventive measures.

In 1925 8·5 per cent. of the milk samples taken in the county were adulterated, as compared with 8·3 per cent. in England and Wales. In England and Wales in 1925 6·5 per cent. of all the samples taken were found to be adulterated.

The Administration of the Food and Drugs Acts in the Borough of Luton.

During the year 219 samples were taken.

Twenty-six samples were found not to be genuine, including 14 which contained some chemical preservative. In eight cases convictions were obtained; and in other cases the vendors were cautioned.

The Administration of the Food and Drugs Acts in the Borough of Bedford.

101 samples of food and drugs were purchased during the year and submitted to the Public Analyst for examination.

Twelve of the samples were adulterated, in 3 instances by the addition of chemical preservatives. As the whole subject of preservatives in food is shortly to be brought under Regulations, no proceedings were instituted during the year in respect of preservatives.

The Public Health (Milk and Cream) Regulations, 1912 & 1917.

It will be recalled that by these Regulations a definite restriction has been placed on the use of preservatives by producers, retailers and others concerned in the milk and cream trade; no preservative is to be added to milk in any case, and no preservative is to be added to cream which is not sold as preserved cream.

The addition to preserved cream of any other preservative substances than those mentioned is prohibited.

4 samples of Cream were submitted to the Public Analyst of the County Council during the year 1925, not one of which contained any thickening substance. The three samples of fresh cream were free from preservative, and the preserved cream purchased fully complied with the Regulations.

The number of Milks submitted was 155, and all were examined for preservatives with negative results.

In the Borough of Bedford 5 purchases of Cream were made and the Regulations were fully complied with in each case.

In the Borough of Luton 9 purchases of Cream were made and the vendor was cautioned for failing to sell cream as preserved, which was found to contain a small amount of Boric Acid ; otherwise the Regulations were observed.

No action appears to have been taken within the County under the Public Health (Condensed Milk) Regulations, 1923, or the Public Health (Dried Milk) Regulations, 1923